



DRAFT

# ARCATA PLANNING AREA



## RESOURCE MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT STATEMENT

DECEMBER 1987



UNITED STATES  
DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT  
UKIAH DISTRICT





## United States Department of the Interior

BUREAU OF LAND MANAGEMENT

555 Leslie Street  
Ukiah, California 95482-5599

Dear Reader:

Enclosed for your review and comment is the Draft Resource Management Plan (RMP) and Draft Environmental Impact Statement (EIS) for the Arcata Resource Area (excluding the King Range National Conservation Area) and portions of the Clear Lake Resource Area. This document outlines a number of alternatives for managing the public lands in these areas. These alternatives are designed to resolve the management issues that were identified during the early stages of the planning process.

Comments concerning the Plan and the adequacy of the Draft Environmental Impact Statement will be considered in preparing the Proposed Plan and Final EIS.

Three public meetings will be held to provide information and receive public comments. These meetings will give you the opportunity to discuss the Draft RMP/EIS with the resource specialists who participated in its development. The meetings will be held at the following locations:

<u>Date &amp; Time</u>	<u>City</u>	<u>Location</u>
February 2, 1988 7:00 - 10:00 p.m.	Eureka	Red Lion Inn 1929 4th Street
February 3, 1988 7:00 - 10:00 p.m.	Garberville	Veterans Memorial Building 483 Conger Street
February 4, 1988 7:00 - 10:00 p.m.	Ukiah	Discovery Inn, Landmark Room 1340 North State Street

We would appreciate receiving your written comments regarding this Draft RMP/EIS. The comment period on this document will remain open through March 31, 1988. Please send your comments to:

Area Manager  
Bureau of Land Management  
P.O. Box 1112  
Arcata, CA 95521

Please retain this Draft RMP/EIS for possible use in conjunction with the Final RMP/EIS. If public review requires only minor changes to this draft, the final will only include public comments and our responses to those comments with changes and corrections. There may be no full reprint of the draft. This procedure will reduce printing costs and expedite issuance of the RMP.

Sincerely,

Al Wright  
District Manager

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ARCATA

RESOURCE MANAGEMENT PLAN

AND

ENVIRONMENTAL IMPACT STATEMENT

U.S. DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

Ed Hartley

State Director  
California

BLM Library  
D-553A, Building 50  
Denver Federal Center  
P. O. Box 25047  
Denver, CO 80225-0047





Arcata Resource Management Plan and  
Environmental Impact Statement

DRAFT

1. Type of Action: Administrative
2. Abstract: The Draft Resource Management Plan presents a comprehensive land and resource prescription for seven management areas in the Arcata and Clear Lake Resource Areas in the Ukiah District, California.

The Environmental Impact Statement analyzes alternatives to the Plan (the preferred alternative) ranging from an emphasis on consumptive uses to an emphasis on protection of natural values.

3. For further information contact:

District Manager  
Bureau of Land Management      OR  
555 Leslie Street  
Ukiah, California 95482-5599  
(707) 462-3873

Area Manager  
Bureau of Land Management  
1125 16th Street  
P.O. Box 1112  
Arcata, CA 95521  
(707) 822-7648

4. Comments must be received by:

April 29, 1988

BLM Library  
D-553A, Building 50  
Denver Federal Center  
P. O. Box 25047  
Denver, CO 80225-0047





## SUMMARY

### INTRODUCTION

The planning area is in northwestern California and includes the Arcata Resource Area except for the King Range National Conservation Area, and includes those portions of the Clear Lake Resource Area which were not addressed in the recent Clear Lake Management Framework Plan (MFP) or Cow Mountain MFP. The majority of public lands involved in this plan are in Humboldt and Mendocino Counties; small tracts are also in Trinity and Sonoma Counties. The plan covers approximately 257,000 acres of public land: 125,000 acres of public domain and 132,000 acres of mineral reserve.

The objective of resource management planning is to maximize resource values for the public through a rational, consistently applied set of procedures which promote the concept of multiple use management. Resource management plans are designed to guide and control future management actions and the development of subsequent, more detailed and limited scope plans for resources and uses.

A major thrust of this resource management plan is to address the viability of intensively managing timber resources within Sustained Yield Unit 13 (SYU 13) as specified in the 1981 Record of Decision. Since 1981, the complexion of SYU 13 has been significantly affected by Bureau-initiated exchanges, wilderness designation, State of California indemnity selections, and the increased occurrence of sensitive animal species on or near forest lands.

The combination of these factors has resulted in a reduction in the availability of timber from public lands, reduced flexibility in managing old-growth dependent animal species, and increased the total of nonstocked acres.

### MANAGEMENT AREAS

For effective analysis and alternative development, seven management areas have been delineated to focus the planning effort on the issues germane to a particular area. Following is a summary of these areas, and the alternatives and impacts of these alternatives for each management area. Table S-1 summarizes the cumulative impacts of these alternatives on the issues selected for analysis for the entire planning area.

#### SAMOA PENINSULA

The management area consists of two tracts of public land--the Samoa Dunes and Manila Dunes. Activity level plans for the Samoa Dunes have already been completed and are incorporated within each of the four alternatives which have been developed for the management area. The NO ACTION (PREFERRED) ALTERNATIVE allows controlled ORV use on Samoa Dunes and prohibits it, except for a beach corridor, on Manila Dunes. This alternative would double the existing levels of ORV use. The ENHANCEMENT OF NATURAL VALUES ALTERNATIVE also allows controlled ORV use on Samoa Dunes but prohibits it altogether on the Manila Dunes parcel. The ENHANCEMENT



of RECREATION VALUES ALTERNATIVE would promote vehicle use on Manila Dunes but may damage the dune ecosystem. The ADMINISTRATIVE ADJUSTMENTS ALTERNATIVE proposes disposal of over half of the management area. The most likely recipients would be organizations interested in maintaining the recreation use opportunities the area provides and preserving the sensitive plant species and dune ecosystem found in the area.

#### LACKS CREEK

Public land in the Redwood Creek watershed (Redwood National Park Protection Zone) has value for timber management and has some old-growth characteristics. Limited public land consolidation has occurred. The California State Lands Commission (SLC) has expressed interest in acquiring these blocks. Four alternatives were developed for this area. The TIMBER PRODUCTION (PREFERRED) ALTERNATIVE would produce about 0.5 million board feet (MMBF) per year over the first rotation under BLM management while still providing some old-growth habitat. The ENHANCEMENT OF NATURAL VALUES ALTERNATIVE formally establishes a 4,500-acre Research Natural Area/Area of Critical Environmental Concern (RNA/ACEC). This would result in a loss to the market of 32 MMBF, and provide an old-growth island between the Redwood National Park and Six Rivers National Forest. The NO ACTION ALTERNATIVE formally establishes a 1,800-acre old-growth RNA/ACEC, and still provides for some timber production. The ADMINISTRATIVE ADJUSTMENTS ALTERNATIVE would dispose of the management area; most likely to the State Lands Commission or surrounding timberland owners. This would provide timber to the market, but would adversely affect old-growth values and the Resource Area's timber program.

#### BUTTE CREEK

This area has known spotted owl habitat (four known breeding pairs) and other high quality old-growth values, and has high value for timber production. The State Lands Commission has expressed interest in acquiring these blocks. Five alternatives were generated for this management area. The ENHANCEMENT OF NATURAL VALUES (PREFERRED) ALTERNATIVE would result in a loss of 53 MMBF of standing timber volume but would protect four pairs of spotted owls. The TIMBER PRODUCTION ALTERNATIVE would ensure, under BLM administration, timber production on an average of 0.85 MMBF per year over the first rotation; this would result in the displacement of the four pairs of spotted owls. The NATURAL HISTORY ALTERNATIVE proposes both timber production (about .40 MMBF per year) and protection of old-growth values (not specifically spotted owls). The NO ACTION ALTERNATIVE formally designates the 360 acres in candidate old-growth reserve in Butte Creek as an RNA/ACEC and reduces harvest of existing standing timber volume from 0.85 MMBF annually to 0.40 MMBF over the first rotation. The ADMINISTRATIVE ADJUSTMENTS ALTERNATIVE would dispose of this management area; most likely to the State Lands Commission as this is their highest priority for acquisition. Timber would be marketed and the old-growth values would probably be lost.

#### KING RANGE VICINITY

This management area includes tracts between the King Range National Conservation Area and the Mattole River. There are no specific resource issues, but two alternatives were developed to address the land tenure



and adjustment issue. The ENHANCEMENT OF NATURAL VALUES (PREFERRED) ALTERNATIVE recognizes that the King Range Vicinity is a logical geographic area in which to consolidate resources for more efficient management. The NO ACTION ALTERNATIVE would dispose of 1,100 acres (historic use has been for exchange within the King Range National Conservation Area). Also, formal decisions would ensure consistency with land management themes within the National Conservation Area.

#### RED MOUNTAIN

Three alternatives were generated for this management area. The ENHANCEMENT OF NATURAL VALUES (PREFERRED) ALTERNATIVE would provide 1.5 MMBF per year to the market over the first rotation and protect old-growth values within the Northern California Coast Range Preserve (NCCRP) and Cedar Creek (within the Red Mountain RNA/ACEC). The NO ACTION ALTERNATIVE would accomplish about the same as the alternative above. The ADMINISTRATIVE ADJUSTMENTS ALTERNATIVE would dispose of much of the timberland to the State Lands Commission. Timber would still be provided to the market by SLC and the most significant old-growth values within the NCCRP and Cedar Creek would remain under BLM administration and protection.

#### COVELO VICINITY

The State Lands Commission has already acquired large tracts from BLM within this management area. Opportunities exist for administrative adjustments with the U.S. Forest Service for more efficient management of Federal interests and with the private sector to help block up more manageable tracts of public lands. Two alternatives were developed for this management area. The ADMINISTRATIVE ADJUSTMENTS (PREFERRED) ALTERNATIVE would dispose of all public lands and provide timber (about 90 MMBF standing volume) to the market. Significant old-growth values are within the Big Butte portion of the Yolla Bolly-Middle Eel Wilderness and would be protected. The impacts of the NO ACTION ALTERNATIVE are virtually the same as the alternative above, only the Federal trustee would be different--administration would remain with the BLM.

#### SCATTERED TRACTS

Several tracts have some old-growth values and timber production. These tracts are difficult and expensive to actively manage. Three alternatives were developed for this management area. The ADMINISTRATIVE ADJUSTMENTS (PREFERRED) ALTERNATIVE would most likely result in acquisition of some of the land by surrounding landowners; this would provide about 108 MMBF of standing volume to the market. This alternative would be detrimental to old-growth values, but there are no tracts within this management area which are part of a large, coordinated, or integrated unit. The ENHANCEMENT OF NATURAL VALUES ALTERNATIVE would provide about 94 MMBF of standing volume to the market by disposal of public lands to private individuals. About 14 MMBF would be lost to the market because of establishment of several Research Natural Areas/Areas of Critical Environmental Concern (RNA/ACECs). These RNA/ACECs are the most significant old-growth stands which may be useful "stepping stones" for wildlife dispersal. Under the NO ACTION ALTERNATIVE Gilham Butte and Iaqua Buttes would be designated RNA/ACECs removing 2,000 acres of commercial forestland from the timber production base. As a result, nearly 90 MMBF of standing volume would be removed from harvest.





TABLE S-1

COMPARISON OF ALTERNATIVES: CUMULATIVE SUMMARY  
OF ENVIRONMENTAL IMPACTS

	NO ACTION ALTERNATIVE	ENHANCEMENT OF NATURAL VALUES	ENHANCEMENT OF RECREATIONAL VALUES	TIMBER PRODUCTION	ADMINISTRATIVE ADJUSTMENTS	NATURAL HISTORY	PREFERRED ALTERNATIVE
Impacts on ORV Recreation Use Level (Samoa Peninsula)	ORV recreational use will be greatly enhanced, increasing ORV use from 11,000 visitor days per year to nearly 17,500 visitor days.	ORV recreational use would be greatly enhanced, increasing ORV use from 11,000 visitor days per year to nearly 17,000 visitor days.	ORV recreational use would be significantly enhanced, increasing ORV use from 11,000 visitor days per year to nearly 22,000 visitor days.	Impacts would be the same as those described under the No Action Alternative.	Impacts would be the same as those described under the No Action Alternative.	Impacts would be the same as those described under the No Action Alternative.	ORV recreational use will be greatly enhanced, increasing ORV use from 11,000 visitor days per year to nearly 17,500 visitor days.
Impacts on Botanical Values and Passive Recreation (Samoa Peninsula)	Botanical Values and passive recreation opportunities will be protected and enhanced on the Samoa Dunes portion of the Samoa Peninsula and moderately benefited on the Manila Dunes portion.	Impacts would be the same as those described under the No Action Alternative.	Impacts on botanical values and passive recreation opportunities on the Samoa Dunes portion of the management area would be the same as for the No Action Alternative. There would, however, be a significant adverse impact on these values on the Manila Dunes portion.	Impacts would be the same as those describe under the No Action Alternative.	Impacts would be the same as those described under the No Action Alternative.	Impacts would be the same as those described under the No Action Alternative.	Botanical values and passive recreation opportunities will be protected and enhanced on the Samoa Dunes portion of the Samoa Peninsula and moderately benefited on the Manila Dunes portion.
Impacts on the Availability of Timber to the Market and the Validity of the Timber Manage- ment Program	<p>6,600 acres of the area's 37,500 acres of commercial forest land (CFL) would be removed from the timber base reducing the amount of standing volume available to the market from 387 MMbf to 216 MMbf and the annual available cut from 5.75 MMbf/year to 3.55 MMbf.</p> <p>6,200 acres of CFL would be acquired. This acquisition coupled with timber stand improvements and the acquisition of timber easements would significantly benefit the availability of timber to the market and the timber management program over the long-term (75 to 110 years), increasing the potential commercial timber to market from 216 MMbf to about 890 MMbf and the annual available cut from 3.55 MMbf/year to 14 MMbf/year.</p>	<p>7,400 acres of the area's 37,500 acres of CFL would be removed from the timber production base reducing the amount of standing volume available to the market from 387 MMbf to 255 MMbf and the annual available cut from 5.75 MMbf/year to 3.8 MMbf/year.</p> <p>4,500 acres of CFL would be acquired. This acquisition, coupled with timber stand improvements and the acquisition of timber easements would significantly benefit the availability of timber to the market and the Timber Management Program over the long-term (75 to 110 years) increasing the potential commercial timber to market from 255 MMbf to over 780 MMbf and the annual available cut from 3.8 MMbf/year to 12.5 MMbf/year.</p>	Impacts would be the same as those described under the No Action Alternative.	<p>4,200 acres of the area's 37,500 acres of commercial forest land (CFL) would be removed from the timber base reducing the amount of standing volume available to the market from 387 MMbf to 264 MMbf and the annual available cut from 5.75 MMbf/year to 4.25 MMbf.</p> <p>6,200 acres of CFL would be acquired. This acquisition coupled with timber stand improvements and the acquisition of timber easements would significantly benefit the availability of timber to the market and the timber management program over the long-term (75 to 110 years), increasing the commercial timber to market from 264 MMbf to 984 MMbf and the annual available cut from 4.25 MMbf/year to over 15.7 MMbf/year.</p>	<p>700 acres of the area's commercial forest land (CFL) would be removed from timber production base reducing the amount of standing volume available to the market from 387 MMbf to 373 MMbf and the annual available cut from 5.75 MMbf/year to 5.55 MMbf. Approximately 6,200 acres of CFL would be temporarily removed from the timber production base to enhance the marketability of these lands, but would be made available to the market once the lands are disposed. The remaining 30,600 acres of CFL is slated for disposal but would be kept in the timber production base pending disposal. While these actions would have a moderate short-term benefit to the local economy, the Resource Area's timber management program would be eliminated.</p>	<p>6,335 acres of the area's 37,500 acres of commercial forest land (CFL) would be removed from the timber production base reducing the amount of standing volume available to the market from 387 MMbf to 217 MMbf and the annual available cut from 5.75 MMbf/year to 3.5 MMbf/year.</p> <p>6,200 acres of CFL would be acquired. This acquisition coupled with timber stand improvements, and the acquisition of timber easements would significantly benefit both the availability of timber to market and the timber management program over the long-term (75 to 110 years) increasing the commercial timber to market from 217 MMbf to almost 890 MMbf and the annual available cut from 3.5 MMbf/year to 14 MMbf/year.</p>	<p>2,800 acres of the area's commercial forest land (CFL) will be removed from the timber base reducing the amount of standing volume available to the market from 387 MMbf to 320 MMbf and the annual available cut from 5.75 MMbf/year to 4.7 MMbf/year. Approximately 15,700 acres of CFL will temporarily be removed from production, but will become available once the lands are disposed. While these actions will not significantly affect the local economy, they will have a short-term adverse impact on the Area's timber program.</p> <p>5,300 acres of CFL will be acquired. This acquisition coupled with timber stand improvements, and the acquisition of timber access will significantly benefit the availability of the market and the Timber Management Program over the long-term (75 to 110 years), increasing the potential commercial timber to market from 320 MMbf to nearly 800 MMbf and the annual available cut from 4.7 MMbf/year to 12.8 MMbf/year.</p>







TABLE S-1 (Continued)

	NO ACTION ALTERNATIVE	ENHANCEMENT OF NATURAL VALUES	ENHANCEMENT OF RECREATIONAL VALUES	TIMBER PRODUCTION	ADMINISTRATIVE ADJUSTMENTS	NATURAL HISTORY	PREFERRED ALTERNATIVE
Impact on Spotted Owls and Other Old-Growth Values	<p>7,000 acres of the planning area's 7,280 acres of old-growth reserve would be preserved; 280 acres would be lost as a result of land disposal. None of the area's spotted owl population would be displaced.</p> <p>10,000 acres would be designated RNA/ACECs and 5,000 acres would be acquired to protect the area's old-growth forest values.</p>	<p>4,880 acres would be preserved; 2,400 acres would be lost as a result of land disposal and one pair of spotted owl(s) would be displaced. The remaining owls would be protected.</p> <p>17,780 acres would be designated RNA/ACECs and 9,040 acres would be acquired protecting and moderately enhancing the area's old-growth forest values.</p>	<p>Impacts would be the same as those described under the No Action Alternative.</p>	<p>5,740 acres would be preserved; 1,540 acres would be lost as a result of land disposals and timber management practices. Four breeding pair, one pair, and one individual spotted owl(s) would be displaced. The remaining owls would be protected.</p> <p>7,880 acres would be designated RNA/ACECs and 4,940 acres would be acquired protecting and enhancing the area's owl-growth forest values.</p>	<p>2,210 acres would be preserved; 5,070 acres would be lost as a result of land disposals displacing five breeding pair, two pair, and one individual spotted owl(s).</p> <p>There would be no special designation and no lands would be acquired.</p>	<p>7,000 acres would be preserved; 280 acres would be lost as a result of land disposals displacing two breeding pair of spotted owls would be displaced. The remaining owls would be protected.</p> <p>10,915 acres would be designated RNA/ACECs and 5,840 acres would be acquired enhancing old-growth forest, wildlife, and riparian values.</p>	<p>3,470 acres of the planning area's 7,280 acres of old-growth reserve will be preserved; 3,810 acres will be lost as a result of timber harvests and land disposals and one breeding pair, two pair and one individual spotted owl(s) will be displaced. The remaining owls would be protected.</p> <p>2,580 acres will be designated RNA/ACECs and 5,600 acres would be acquired protecting the area's more significant old-growth values.</p>
Impact on Indemnity Selection, Land Tenure, and Manageability of Scattered Tracts.	<p>6,200 acres would be available to help satisfy the State's indemnity selection entitlement and to consolidate Federal land ownership. Of this amount, only half would be acquired by the State. The remainder would be exchanged to acquire Federal lands elsewhere. These land tenure adjustments, coupled with the acquisition of 12,382 acres for timber management and wildlife and riparian values, would moderately enhance the manageability of the area's resources.</p>	<p>9,860 acres would be available to help satisfy the State's indemnity selection entitlement and to consolidate Federal land ownership. Of this amount, only one-third would be acquired by the State. The remainder would be exchanged to acquire Federal lands elsewhere. These land tenure adjustments coupled with the acquisition of 13,582 acres would moderately enhance the manageability of the area's resources.</p>	<p>Impacts would be the same as those described under the No Action Alternative.</p>	<p>5,800 acres would be available to help satisfy the State's indemnity selection entitlement and to consolidate Federal land ownership. Of this amount only half would be acquired by the State. The remainder would be exchanged to acquire Federal lands elsewhere. These land tenure adjustments coupled with the acquisition of 12,382 acres would moderately enhance the manageability of the area's resources.</p>	<p>104,300 acres would be available to help satisfy the State's indemnity selection entitlement and to consolidate Federal land ownership. 45,000 acres of these land would be transferred to the USOA Forest Service. 29,000 acres would be acquired by the State and the remaining 30,300 acres will be exchanged to acquire Federal lands elsewhere. These land tenure adjustments, coupled with the acquisition of 1,200 acres in the King Range Vicinity and 42 acres on the Samoa Peninsula would significantly benefit the manageability of the Scattered Tracts land throughout the area.</p>	<p>5,100 acres would be available to help satisfy the State's indemnity selection entitlement and to consolidate Federal land ownership. Of this amount, half would be acquired by the State. The remainder would be exchanged to acquire Federal lands elsewhere. These land tenure adjustments, coupled with the acquisition of 13,282 acres would moderately enhance the manageability of the area's resources.</p>	<p>77,360 acres will be available to help satisfy the State's indemnity selection entitlement and to consolidate Federal land ownership. 45,000 acres of these lands will be transferred to the USOA Forest Service. Although the other 32,360 acres will be available for indemnity selection, only 3,000 acres will be acquired by the State. The remaining will be exchanged to acquire Federal lands elsewhere. These land tenure adjustment coupled with the acquisition of 11,942 acres will significantly enhance the manageability of the area's resources.</p>



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# CHAPTER 1

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## INTRODUCTION





## CHAPTER 1

### INTRODUCTION

#### LOCATION

The planning area is in northwestern California and includes the Arcata Resource Area except for the King Range National Conservation Area, and includes those portions of the Clear Lake Resource Area which were not addressed in the recent Clear Lake Management Framework Plan (MFP) or Cow Mountain MFP. The majority of public lands involved in this plan are in Humboldt and Mendocino Counties; small tracts are also in Trinity and Sonoma Counties (Map 1-1). The plan covers approximately 257,000 acres of public land: 125,000 acres of public domain and 132,000 acres of mineral reserve.

For purposes of analysis, the Planning Area has been subdivided into seven Management Areas (MAs) based on common features, problems, and/or management needs. These MAs represent vegetation types varying from old-growth forests in the north to chaparral covered, small acreage in the south.

#### PURPOSE OF AND NEED FOR ACTION

The purpose of the Proposed Plan in this draft environmental impact statement is to identify what the BLM believes to be the best management approach for resolving identified resource management concerns and public issues for the next 10 years. These concerns and issues determined the need for planning by pointing out management opportunities or problems associated with current management.

A major thrust of the plan is to address the viability of intensively managing timber resources within Sustained Yield Unit 13 (SYU 13) as specified in the 1981 record of decision (ROD). Since 1981, the complexion of SYU 13 has been significantly affected by Bureau-initiated exchanges, wilderness designation, State of California in-lieu selections, and improved information on occurrence of sensitive animal species on or near forest lands. The combination of these factors has resulted in reduced availability of timber from public lands, reduced flexibility in managing old-growth forests and old-growth dependent animal species, and an increase in the total of nonstocked and understocked commercial forest land.

Existing land use plans for the area are not responsive or do not address these new resource demands and will be replaced by the decisions forthcoming from this planning effort. Those plans to be superseded are East Mendocino, Red Mountain, and Scattered Blocks Management Framework Plans.





## TYPES AND LEVELS OF DECISIONS

The primary goals of this planning effort are to:

1. Identify specific lands suitable for state indemnity selections.
2. Identify land which the BLM should acquire/consolidate to enhance its mission.
3. Identify public lands for permanent timber management and calculate a new allowable cut.
4. Establish criteria and identify public lands for management of old-growth values, especially the northern spotted owl.
5. Identify appropriate uses for public lands on Samoa Peninsula.

## BUREAU PLANNING SYSTEM

Section 202 of the Federal Land Policy and Management Act of 1976 (FLPMA) requires the Bureau of Land Management to prepare, maintain, and use land use plans. In addition, the CEQ Regulations implementing the National Environmental Policy Act of 1969 (NEPA) list land use plans as generally being significant Federal actions requiring preparation of environmental impact statements (see 40 CFR 1508.18(b)(2)). Thus, the Bureau's land use planning process follows procedures outlined in both 43 CFR 1600 and 40 CFR 1500.

The process follows the general outline typical of any decision analysis:

1. Define goals.
2. Scope the issues and collect relevant data.
3. Develop information from the data and scoping process.
4. Evaluate the information and develop alternatives to address significant problems and conflicts.
5. Make a decision (Record of Decision).
6. Implement the decision.
7. Monitor the resources and track implementation of the planning steps.
8. Amend the decision and/or revise the plan when necessary.



## ISSUES SELECTED FOR ANALYSIS

The following issues are the critical issues this plan addresses. They were developed in the early stages of the planning process by the Bureau, through public input, and coordination with other Federal, State, and local agencies.

### Spotted Owls and Other Old-Growth Forest Values

The Record of Decision for Sustained Yield Unit 13 recognized the need for protecting habitat of the northern spotted owl (Strix occidentalis). Absent official guidance, a minimum of 300 acres was set aside for each pair of spotted owls. As of 1986, 10 of 19 timber sales in the 10-year timber plan have, or are suspected to have, spotted owls. About 24 million board feet (MMBF) of the 50 MMBF scheduled to be harvested under this plan are affected by this mitigation measure. The tradeoff between spotted owls and harvest of old-growth timber needs to be reassessed in view of the unanticipated loss of timber available for harvest, recent research on the habitat requirements of the spotted owl, and BLM policies regarding sensitive species. Remaining spotted owl habitat may not only be threatened by BLM-initiated timber management, but also by disposal to other entities which may not have a multiple-use mandate.

Eighteen candidate old-growth reserves were originally proposed in 1980 (Table 4-8, SYU 13 Draft Timber Management Environmental Impact Statement) as a mitigation for loss of old-growth characteristics. The EIS Record of Decision (p. 7) called for study of these candidates to determine suitability as old-growth reserves. The BLM, through a Cooperative Agreement with The Nature Conservancy (TNC), inventoried the reserves (see Summary of Inventory Methodology, Appendix 1-1). Sufficient information now exists to determine suitability and management thrust for reserves of old-growth characteristics, including formal designation as Areas of Critical Environmental Concern (ACEC).

### Forest Development and Availability of Timber to Market

There are currently 20,000 acres of commercial forest land which are nonstocked and in need of reforestation. Funding for reforestation has traditionally been limited. In addition, there is a demand for these type lands for nontimber uses such as wilderness, sensitive species and rural residential.

Lands within the Resource Area have also been used for exchanges and to settle the in-lieu entitlements (about 5,775 acres with standing volume of 74 MMBF have been selected by the State Lands Commission (SLC) for in-lieu entitlements and about 5,720 acres with standing volume of 41 MMBF have been exchanged with the SLC for desert lands since 1981; 4,300 acres with standing volume of about 90 MMBF were designated wilderness in 1984; and 6,500 acres with 150 MMBF of standing volume have been used for Bureau exchanges). The Federal government still owes the State of California about 52,000 acres or about 1.7 billion dollars worth of in-lieu entitlement. Also, the Bureau's forest land policy, the King Range Act, and other demands for Federal land uses and consolidation present both threats and opportunities for improvement of timber management.



The current commercial forest land base permits harvesting about 6 MMBF per year on a sustained yield basis.

Considering these factors, the question to be resolved is which of these lands are best retained in the forest base and managed as commercial forest land and which are best suited for other uses. Analysis will focus on costs of reforestation against potential timber volume, conflicts between timber management and surrounding land uses, and habitat values gained or lost with timber management emphasis.

#### Land Tenure Adjustment

Under the State's indemnity entitlement about 52,000 acres of land are owed to the State. Over the years about 5,775 acres in the Arcata Resource Area have been selected by the State. There is a need to determine whether any additional public lands will be available for selection. Aside from the need to satisfy the State's in-lieu entitlements, there is also a need to improve the efficiency and quality of management of the public lands and to enhance the public's use of that land. Small, isolated parcels of public land scattered throughout the resource area are difficult to manage, and lack of legal access limits or precludes public use of many of these parcels. Through exchange or disposal of isolated parcels, the BLM would have opportunities to accommodate public works projects and to meet the need for recreation and for residential, commercial, industrial, and agricultural land. Such actions could eliminate or reduce management burdens and costs and enhance resource values and land ownership patterns.

#### Sensitive Plant Habitat - Manila Dunes

Motorized vehicle use is a major component of recreational activities on the Samoa Peninsula and is expected to increase. This use may adversely impact habitat for Menzie's wallflower and associated communities on the Manila Dunes parcel. Additional attention is needed to protect this habitat and balance its protection with the increasing demand for motorized recreational use.

### ISSUES CONSIDERED BUT DROPPED FROM FURTHER ANALYSIS

The following issues or concerns were identified in scoping but were not selected for detailed analysis in this EIS because after careful study of each, the degree of concern, environmental effect, or relevance was too small to justify further intensive study. The reasons for not analyzing these issues in depth are discussed below by management area.

#### RED MOUNTAIN

##### 1. Wilderness designation of the Cahto Peak, Brush Mountain, and Elkhorn Ridge WSAs.

The Cahto Coalition continues to express interest in wilderness designation for the Cahto Peak (CA-050-131), Brush Mountain (CA-050-135), and Elkhorn Ridge (CA-050-134) areas particularly because recent acquisitions in the South Fork Eel River corridor connect the Elkhorn



Ridge and Brush Mountain blocks. The original inventory determinations that none of these areas have outstanding opportunities for solitude or primitive and unconfined recreation are still valid; the acquisitions along the South Fork Eel River corridor are lands previously logged (as was public land in Surveyors Canyon). In addition, this portion of the South Fork Eel River was designated by the Secretary of the Interior "wild" under the Federal Wild and Scenic River Act and this is all the consideration the area needs. Therefore, wilderness designation for this area is not appropriate and will not be analyzed further in this document.

2. Designation of the Charlton Creek/White Slide and Jewett Rock Areas as Old-Growth Reserves.

The Charlton Creek/White Slide area was one of the candidate reserves to be studied for old-growth characteristics. Crews have been unable to inventory the area because of access difficulties. Because of this manageability consideration and because this region has several significant old-growth areas, including Cedar Creek (Red Mountain RNA/ACEC), the Northern California Coast Range Preserve and the Big Butte portion of the Yolla Bolly-Middle Fork Eel Wilderness, establishing another old-growth reserve in this geographic area is unwarranted. Therefore, this candidate reserve is dropped from further analysis.

The Jewett Rock area was one of the candidate reserves to be studied for old-growth characteristics. Inventory shows that the area lacks significant old-growth characteristics; this area is dropped from further consideration as an old-growth reserve and will not be analyzed in the EIS.

#### COVELO VICINITY

1. Designation of the Hulls Creek Area as an Old-Growth Reserve.

The Hulls Creek area was one of the candidate reserves to be studied for old-growth characteristics. Crews have been unable to inventory the area because of access difficulties. Because this region has several significant old-growth areas, including Cedar Creek (Red Mountain RNA/ACEC), the Northern California Coast Range Preserve, and the Big Butte portion of the Yolla Bolly-Middle Eel Wilderness, establishing another old-growth reserve in this geographic area is unwarranted. Therefore, this candidate reserve is dropped from further analysis.

#### DECISION CRITERIA

The following assumptions and constraints guide this RMP; they are intended to focus analysis on the critical issues, provide the framework for a comprehensive plan, and to judge the overall desirability of the alternatives. References are to the Federal Land Policy and Management Act of 1976 (FLPMA).



## EXISTING AND ONGOING DECISIONS INCORPORATED BY REFERENCE

1. The management of livestock will follow prescriptions of the Yokayo Grazing Statement's Record of Decision which is incorporated by reference and will not be analyzed. (See Appendix 1-2 regarding Manageability). Unless specifically prohibited by a particular alternative, all "manageable" public land is available for livestock grazing.
2. The wilderness suitability studies already in progress (Red Mountain, CA-050-132; Eden Valley, CA-050-214; Thatcher Ridge, CA-050-212) are incorporated into this RMP; no additional suitability analysis will be done as part of this plan. The wilderness suitability recommendations of the BLM are for nonwilderness for all three of these study areas. Red Mountain is currently designated as a Research Natural Area and Area of Critical Environmental Concern. Eden Valley and Thatcher Ridge have no significant wilderness values or uses. The California Wilderness Act of 1984 included portions of the Big Butte Wilderness Study Area (CA-050-211) in the Yolla Bolly-Middle Eel Wilderness. The portion of the WSA that was not included in the wilderness is about 2,400 acres and is a "202" area (to be studied for wilderness at the discretion of the Bureau). A statewide "202" wilderness package is scheduled for completion in 1988, so the suitability recommendation for Big Butte is deferred until that study is completed, at which time the suitability determinations will be incorporated into this RMP.
3. The BLM is committed to cost-effective, long-term timber management in northwestern California. The basic timber management parameters as presented in the SYU 13 EIS/ROD are not changed. Analysis will be focused on mitigations and commitments regarding old-growth habitat retention and management. The concept of managed old-growth (MOG) as the preferred silvicultural prescription is still valid. (See Appendices 2-2 and 2-3.)
4. The management of recreation activities on the Samoa Dunes portion of the Samoa Peninsula management area will follow the prescription outlined in the Samoa Dunes Off-Road Vehicle Plan (1982) which is incorporated by reference and will not be analyzed. An abbreviated description of the project is outlined in Chapter 3 (p. 3-5) of this document.

## GENERAL POLICY AND STANDARD OPERATING PROCEDURES (References are to FLPMA)

1. Management will be on the basis of multiple-use (Section 102(a)(7)).
2. Management will be on the basis of sustained yield (Section 102(a)(7)).
3. Public lands to be disposed are difficult and uneconomic to manage as part of the public lands and are not suitable for management by another Federal department or agency (Section 203(a)(1)).
4. Public lands are to be retained in Federal ownership unless disposal serves the national interest (Section 102(a)(1)).



5. Public lands will be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use (Section 102(a)(8)).
6. Public lands will be managed in a manner which recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands including implementation of the Mining and Minerals Policy Act of 1970, as it pertains to the public lands (Section 102(a)(12)).
7. The Bureau will give priority to the designation and protection of Areas of Critical Environmental Concern (Section 202(c)(3)).
8. The Bureau will weigh long-term benefits to the public against short-term benefits (Section 202(c)(7)).
9. The Bureau will consider simplicity of execution of management schemes.
10. Manageability of public lands will consider:
  - a. Safety of the public and Bureau personnel with regard to road maintenance, illegal land uses, etc.
  - b. Relative cost-effectiveness of managing individual tracts.
  - c. Fiscal ability of Bureau to effectively manage lands and interests (including easements) in the long term.
  - d. Alternative management schemes--creative partnership with other agencies and organizations.
  - e. Willingness of other organizations and agencies to vigorously prosecute implementation of land use plan decisions made at their behest.
11. The BLM will not dispose of Wilderness Study Areas (WSAs), Research Natural Areas and Areas of Critical Environmental Concern, or other resources of high national interest to non-Federal agencies. Disposal of the habitat of endangered, threatened, or sensitive species to non-Federal agencies or nonprofit organizations (e.g., counties, State, The Nature Conservancy) may be considered only if the protection and conservation that would be afforded the habitat following transfer of title equals or exceeds the level afforded by Federal ownership. Such determination would be made by the State Director. Disposal of the habitat of officially listed endangered or threatened species would occur only after consultation with the U.S. Fish and Wildlife Service pursuant to Section 7 of the Endangered Species Act of 1973, as amended.

12. The general areas identified for acquisition under the alternatives are high priority areas which give the BLM direction for land and resource consolidation in order to improve manageability and cost-effectiveness. These proposed acquisitions are not intended to be an exhaustive list of every opportunity. Acquisition depends on willingness for sale or exchange, and other opportunities which arise that meet the resource condition objectives will be considered.
13. In instances where the legal descriptions for Special Designation are down to section only, the intent is to automatically include under the designation lands which may be acquired in those sections.
14. Special Designations for Red Mountain RNA/ACEC and the Northern California Coast Range Preserve ACEC and their management thrusts will not be reanalyzed.
15. This plan establishes the following priorities for disposal of lands and resources (disposal is defined as the transfer of public lands out of BLM administration and includes sales and exchanges, R&PP sales and leases, indemnity selection, and transfer to another Federal trustee):
  - Bureau of Land Management exchange base lands;
  - Other Federal agencies;
  - State agencies;
  - Local governments;
  - Individuals;
  - Any other person (corporations).
16. BLM will continue to cooperate with the California Department of Fish and Game with regard to Deer Herd Management Plans.
17. Site-specific inventories and analyses for threatened and endangered (T&E) species, historic properties (cultural resources), and mineral values are required prior to disposal of public lands and interests.
18. Public lands not discussed in this document, but which are later identified because of survey error or through resurvey, will follow the resource condition objectives and land use allocations as specified for the management area.

#### AREAWIDE DECISIONS

1. No public lands in the planning area are suitable or available for agricultural entry, including Indian Allotment (43 CFR 2530), because of the rugged topography, small tract size, unsuitable soils, and lack of access. No public lands are desert in character (43 CFR 2520); therefore, no public lands are available for disposal under the desert land laws.
2. Unless specifically prohibited by a particular alternative, all public lands (including mineral reserve lands) are available for mineral leasing and mineral material sales, and are open to entry under the Mining Law of 1872.



3. On February 10, 1986, Federal Court Judge Joseph H. Pratt issued a preliminary injunction order in National Wildlife Federation v. Robert F. Burford, et al., Civil Action No. 85-2238 D.C.D.C. This injunction, effective February 15, 1986, enjoined the BLM from taking any action inconsistent with the specific restrictions of a withdrawal or classification in effect on January 1, 1981. (Appendix 1-3 contains a listing of the affected classifications and withdrawals.) The injunction did not reinstate any classifications or withdrawals.

For analysis purposes in this EIS, we are assuming that the NO ACTION ALTERNATIVE for the classifications and withdrawals listed in Appendix 1-3 is the situation that existed prior to February 15, 1986, which is to say, the listed classifications and withdrawals are no longer in effect. We will not analyze the classifications and withdrawals that were terminated or revoked prior to February 15, 1986. We will, however, review other existing BLM classifications and withdrawals and consider new proposals for withdrawal on all subject lands. Implementation of the lands-related recommendations in the final plan may be affected by the injunction or the final order of the court(s).

#### DETERMINATIONS NOT MADE IN THIS PLAN

Bureau planning guidance requires certain decisions to be made during the land use planning process unless they can be derived from other decisions, the resource is not present in the area or has no interest, or if such a decision would be premature at this time. The following determinations meet one or more of these conditions and are, therefore, not addressed in this plan.

1. Specific access routes have not been identified, but access which is necessary to meet the resource condition objectives and fully implement the land use allocations will be acquired.
2. Due to the scattered nature, remoteness, and the relative insignificance in the landscape of the BLM tracts, visual resource management (VRM) classes are considered to be inventory standards rather than planning decisions; VRM classes will be determined on a site-specific basis through standard VRM inventories, and contrast ratings will be used to mitigate projects which may significantly impact visually sensitive areas.
3. Rights-of-way determinations cannot be made at this planning level with any degree of credibility. Federal tracts do not control rights-of-way such as highways or utility corridors. Proposals will be addressed on a site-specific basis.
4. California Department of Forestry is responsible for general fire suppression policies in the study area; deviations from CDFFP's fire suppression policy will be made on a site-specific basis (wilderness, ACECs). Prescribed fire is generally allowed and will be addressed on a site-specific basis through the demands of resource objectives.

5. Air Resources - BLM must secure permits from State and local agencies for projects impacting air quality. No specific decisions will be made in this plan.
6. Soil and Water Resources - decisions regarding soil and water objectives will not be made in this plan. Best Management Practices (BMPs) such as the operating parameters for the SYU 13 and Yokayo Grazing Management Records of Decision will determine general soil and water objectives.
7. Historic Properties (cultural resource values) will be assessed on a site-specific basis, generally in response to other resource objectives. All Bureau actions will comply with the National Historic Preservation Act (1966) for the protection of significant cultural resources. An appropriate level of inventory will be done for all actions with a potential to affect these resources. The Bureau will also make a reasonable and good faith effort to identify and consider contemporary Native American concerns where projects might affect socio-cultural or religious values.
8. Due to the scattered nature of public land, low economic mineral potential, and lack of interest in mineral development within the resource area, restrictions and stipulations for mineral development will be determined on a case-by-case basis.





## CHAPTER 2

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# ALTERNATIVES





## CHAPTER 2

### ALTERNATIVES INCLUDING THE PREFERRED ALTERNATIVE

Since the pattern of future actions within the Resource Area cannot be predicted with certainty, we have made projections of management actions to allow the analysis of impacts under the various alternatives. These projections are the basis of the impacts identified in this EIS. They represent reasonably feasible patterns of activities which could occur under the alternatives analyzed. The alternatives were developed for each management area (MA) by a core planning team, based on the issues and goals listed in Chapter 1, guided by the alternative formulation criteria and making full use of public consultation, coordination with other agencies, and evaluation by District resource specialists. Only significant issues were addressed.

One scenario for each management area is identified as the preferred alternative--the array of the seven individual selections constitutes the draft resource management plan. The rationale for selecting a particular alternative is explained after all of the alternatives are presented. The rationale takes into account the specific features of the management areas, the overall management of the area, and the regional and statewide perspectives on BLM resources. Thus, one area may have consumptive uses emphasized to balance resource use and demands against an area to be managed in a more restrictive manner. This helps to ensure that the resources will be managed to maximize all public benefits.

### ALTERNATIVE DEFINITIONS

Alternatives were developed for each management area based on the resource values and issues pertinent to each management area. Alternatives were developed to provide management options which address the critical issues only. Resource and land use allocations which are not related to the critical issues are also part of the management scenario but are common features among the alternatives.

#### NO ACTION ALTERNATIVE

The NO ACTION ALTERNATIVE is defined as the continuation of the present situation. For the purposes of a land use plan it is the continuation of the current level, intensity, direction, or systems of resource use and protection; it is not a static condition or point in time but a logical progression.

#### ADMINISTRATIVE ADJUSTMENTS ALTERNATIVE

Six of the seven management areas have an ADMINISTRATIVE ADJUSTMENTS ALTERNATIVE which proposes disposal and consolidation of Federal interests managed by the BLM. This alternative gives the BLM the opportunity to consolidate Federal interests for more effective and efficient management and to settle the outstanding indemnity to the State of California.



## ENHANCEMENT OF NATURAL VALUES ALTERNATIVE

This alternative emphasizes protection and enhancement of natural values, or aspects of lands and resources which are generally nonconsumptive or passive uses. This does not mean that consumptive uses are prohibited; all uses which are compatible with the resource condition objectives are considered when developing the management scenario.

### EMPHASIZE CONSUMPTIVE RESOURCE USES (TIMBER, RECREATION)

This option emphasizes consumptive land uses such as intensive timber production and consumptive recreation (off-road vehicles). This does not imply that natural values are ignored; all uses which are compatible with the resource condition objectives are considered when developing the management scenario.

## MANAGEMENT AREAS

For effective analysis and alternative development, seven management areas have been delineated (Map 1-1). A management area is an area of similar demand, resource potential, problems, or management direction. Delineation of MAs helps to focus the planning effort on the issues germane to a particular area.

**SAMOA PENINSULA:** Covers two tracts of public land totaling 370 acres where demands for ORV use compete with sensitive dune vegetation and wetlands.

**LACKS CREEK:** This area contains approximately 4,500 acres of public land in the Redwood Creek watershed (Redwood National Park Protection Zone), has value for timber management, and has some old-growth characteristics. Limited public land consolidation has occurred. State Lands Commission has expressed interest in acquiring these blocks. It also includes about 500 acres of Federal mineral estate.

**BUTTE CREEK:** This area encompasses 2,500 acres of public land and has significant spotted owl habitat (four known pair of spotted owls) and other old-growth values, and has high value for timber production. State Lands Commission has expressed interest in acquiring these lands as a high priority. Also includes 1,500 acres of mineral estate.

**KING RANGE VICINITY:** The area totals about 3,900 acres of recently acquired land and tracts between the King Range and Mattole River. The issue of land tenure, where to best consolidate Federal lands and resources, is relevant to the King Range Vicinity. This area requires formal decisions to ensure some consistency with land management themes within the King Range National Conservation Area. The area also includes about 3,200 acres of mineral estate.

RED MOUNTAIN: The area contains approximately 34,300 acres of public land and 14,000 acres of mineral estate. Some old-growth values exist that may conflict with timber management; opportunities exist for consolidation and disposal. State Lands Commission has expressed interest in acquiring some of these tracts.

COVELO VICINITY: Public lands have historically been used for timber production. State Lands Commission has recently acquired large tracts within this management area; sensitive species exist. Opportunities exist for administrative adjustments with the U.S. Forest Service and others for more efficient management of Federal interests. Includes 66,500 acres of public land and 30,000 acres of Federal mineral estate.

SCATTERED TRACTS: Consists of 12,700 acres of public land and 82,800 acres of mineral estate. Several tracts scattered from San Francisco to the Oregon border have limited value for old-growth characteristics and timber production. Historically, because of the difficulty and expense of BLM management, scattered tracts have been used as exchange base lands for consolidation of higher priority Federal lands such as the King Range National Conservation Area, the Cache Creek area in the Clear Lake Resource Area, and lands within wilderness study areas in the California Desert National Conservation Area.

## ORGANIZATION OF ALTERNATIVE SCENARIOS

The descriptions of the alternatives consist of three planning elements:

### Resource Condition Objectives

These are the major "themes" which guide management of the specific areas. They are necessary to develop land use allocations and to address unforeseen proposals.

### Land Use Allocations

These are the general quantifications of allowable land and resource uses.

### Management Actions

These are not land use decisions; these are general implementation actions which:

1. Ensure planning objectives are met.
2. Ensure necessary refinements to the plan are being made.
3. Guide BLM budgeting and programming. Management actions alert the public to specific follow-up actions necessary to implement the plan, so everyone is aware of the costs, complexity, time constraints, and other requirements to realizing the plan objectives. There is no intent to provide a comprehensive list of management actions at this time; actions, priorities, and schedules will be added, deleted, or modified during the useful life of this plan.



## ALTERNATIVE DESCRIPTIONS

### MANAGEMENT AREA: SAMOA PENINSULA

Four alternatives were generated for this management area. They provide decisionmakers a range of realistic and distinct options relating to the significant issues: sensitive dune ecosystems and off-road vehicle use.

1. No Action. The continuation of present management consists of both protection of dune ecosystems and provisions for controlled ORV use using State of California "Green-Sticker" funding. This is the preferred alternative.
2. Enhancement of Natural Values. Emphasizes protection of the dune ecosystems by designating both public land parcels as a Research Natural Area/Area of Critical Environmental Concern. Assumes that the protection and study of natural values are more critical than providing any ORV opportunities in the area (excluding a 125-acre ORV riding area).
3. Enhancement of Recreation Values. Emphasizes controlled ORV use on the peninsula. Assumes that ORV opportunities are limited on the north coast and that sensitive dune ecosystems are adequately protected on private land (for example: Lanphere-Christensen Dunes Preserve of The Nature Conservancy).
4. Administrative Adjustments. Recognizes extremely limited Federal resource interest in the area, and proposes disposal of public lands to improve Federal management efficiencies. Assumes that excellence in resource protection and enhancement can be effected through disposal to selected entities, and that more significant Federal interests lie elsewhere.

MANAGEMENT AREA: SAMOA PENINSULA

ALTERNATIVE: NO ACTION/PREFERRED (Continuation of Present Management)

RETAIN: 370 acres

ACQUIRE: 42 acres

DISPOSE: 0 acres

---

I. RESOURCE CONDITION OBJECTIVES

Samoa Dunes:

1. Provide opportunities for off-road vehicle recreation.
2. Protect specific populations of Menzie's wallflower (Erysimum menziesii), coastal wetlands and other natural values.
3. Provide opportunities for other nonconsumptive recreational uses.

Manila Dunes:

1. Enhance natural values.
2. Facilitate research and educational uses of unique dune ecosystems.
3. Provide limited opportunities for off-road vehicle recreation.

II. LAND USE ALLOCATIONS (See Map 2-1)

1. Public lands are not available for disposal.
2. Actively pursue acquisition of approximately 42 acres south of Manila Dunes (Lindgren property) for access and include as part of the Manila Dunes ONA/ACEC designation.
3. Sensitive species will be protected according to the BLM Sensitive Species Policies (see Appendices 2-3 and 2-4).
4. Off-Road Vehicle Designations (pursuant to 43 CFR 8340):

Samoa Dunes: 175 acres - CLOSED  
125 acres - OPEN

Manila Dunes: Vehicles will be LIMITED to a narrow corridor which will be identified in an activity plan for the area.

5. Develop ORV park (staging area, riding trails, etc.) on the Samoa Dunes. (See Appendix 1-3.)



MANAGEMENT AREA: SAMOA PENINSULA

ALTERNATIVE: NO ACTION/PREFERRED (Continuation of Present Management)

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II. LAND USE ALLOCATIONS (CONT.)

6. Designate Manila Dunes as Outstanding Natural Area (ONA)/Area of Critical Environmental Concern (ACEC) for protection and interpretation of natural values.

T. 6 N., R. 1 W., HM, Sections 26, 27, 34, 35.










No Special Designations for Samoa Dunes parcel.

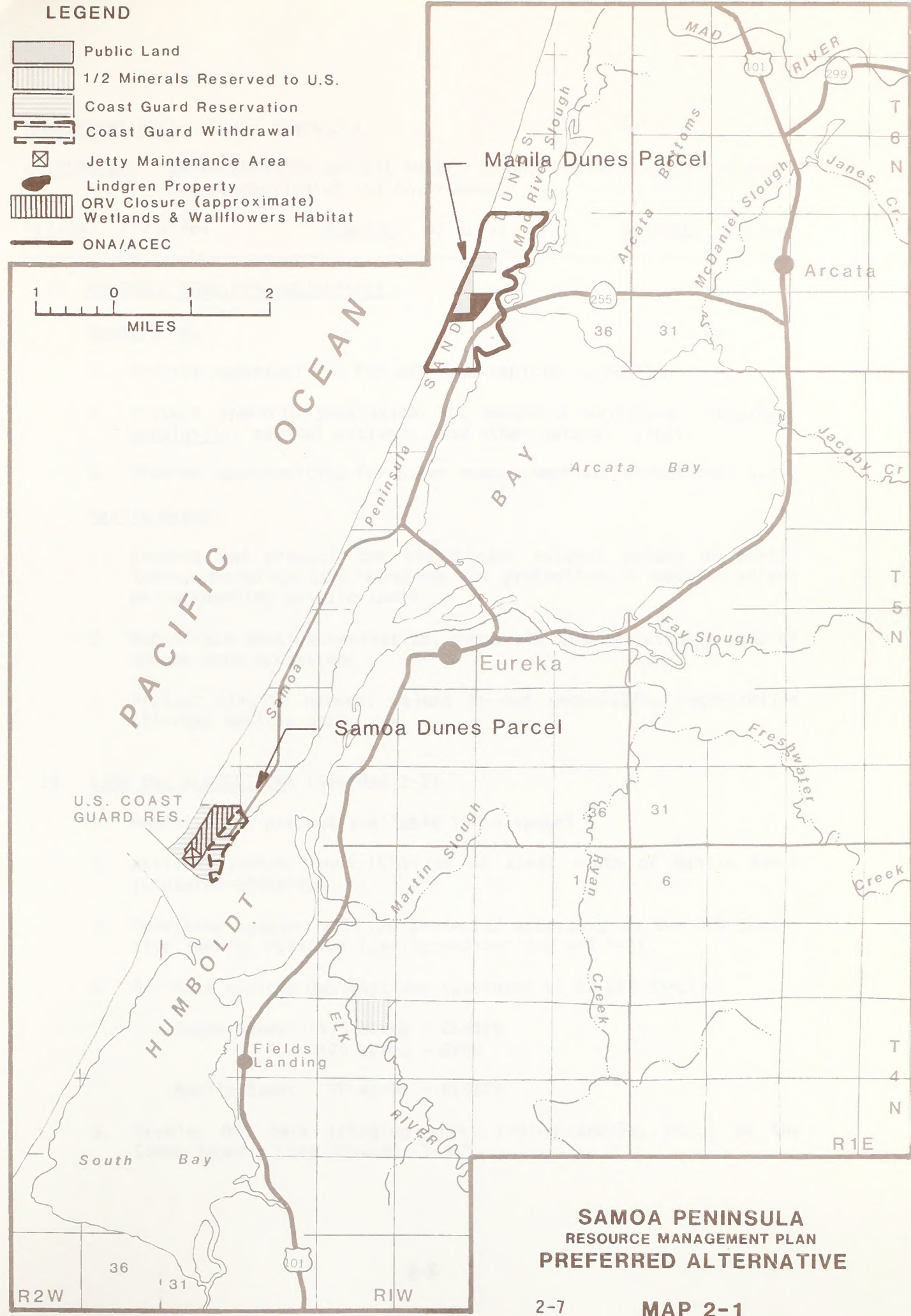
7. Entire management area is CLOSED to firearms shooting.
8. Public lands are not available for mineral material sales.
9. Public land is not available for livestock grazing.
10. Forty acres on Samoa Dunes are available for temporary use on a periodic basis by the U. S. Army Corps of Engineers for jetty construction and maintenance.

III. MANAGEMENT ACTIONS

1. Federal Register notices:
  - a. ORV designations
2. Acquire public access to Manila Dunes.
3. Prepare an ACEC activity plan for Manila Dunes.
4. Continue to apply for "Green-Sticker" funds for Samoa Dunes.
5. Monitor cultural resources and Menzie's wallflower.
6. Contact universities, local schools, and The Nature Conservancy for expression of interest in research and cooperative management of the Manila Dunes.
7. Contact property owners about Manila Dunes acquisition (see Land Use Allocation No. 2).
8. Post boundaries.

# LEGEND

-  Public Land
-  1/2 Minerals Reserved to U.S.
-  Coast Guard Reservation
-  Coast Guard Withdrawal
-  Jetty Maintenance Area
-  Lindgren Property
-  ORV Closure (approximate)
-  Wetlands & Wallflowers Habitat
-  ONA/ACEC



## SAMOA PENINSULA RESOURCE MANAGEMENT PLAN PREFERRED ALTERNATIVE





MANAGEMENT AREA: SAMOA PENINSULA

ALTERNATIVE: ENHANCEMENT OF NATURAL VALUES (Emphasize Nonconsumptive Uses and Protection of the Environment)

RETAIN: 370 acres

ACQUIRE: 42 acres

DISPOSE: 0 acres

---

I. RESOURCE CONDITION OBJECTIVES

Samoa Dunes:

1. Provide opportunities for off-road vehicle recreation.
2. Protect specific populations of Menzie's wallflower (Erysimum menziesii), coastal wetlands, and other natural values.
3. Provide opportunities for other nonconsumptive recreational uses.

Manila Dunes:

1. Enhance and protect the significant natural values on public lands; encourage consideration and protection of natural values on surrounding private lands.
2. Facilitate passive recreation, research, and educational uses of unique dune ecosystem.
3. Protect offsite natural values by not encouraging uncontrolled off-road vehicle use.

II. LAND USE ALLOCATIONS (See Map 2-2)

1. Public lands are not available for disposal.
2. Actively pursue acquisition of 42 acres south of Manila Dunes (Lindgren property).
3. Sensitive species will be protected according to the BLM Sensitive Species Policies (see Appendices 2-3 and 2-4).
4. Off-Road Vehicle Designations (pursuant to 43 CFR 8340):
  - Samoa Dunes: 175 acres - CLOSED  
125 acres - OPEN
  - Manila Dunes: 70 acres - CLOSED
5. Develop ORV park (staging area, riding trails, etc.) on the Samoa Dunes. (See Appendix 1-3.)



MANAGEMENT AREA: SAMOA PENINSULA

ALTERNATIVE: ENHANCEMENT OF NATURAL VALUES (Emphasize Nonconsumptive Uses and Protection of the Environment)

---

II. LAND USE ALLOCATIONS (CONT.)

6. Designate Manila Dunes as Outstanding Natural Area (ONA)/Area of Critical Environmental Concern (ACEC) for protection and interpretation of natural values.

T. 6 N., R. 1 W., HM, Sections 26, 27, 34, 35.










No Special Designations for Samoa Dunes parcel.

7. Public lands are CLOSED to firearms shooting, but open to other forms of dispersed unstructured recreation that do not interfere with research or educational values.
8. Public lands are not available for material sales.
9. Public lands are not available for livestock grazing.
10. Forty acres on Samoa Dunes are available for use by the U.S. Army Corps of Engineers for jetty construction and maintenance. Other rights-of-way are not affected.

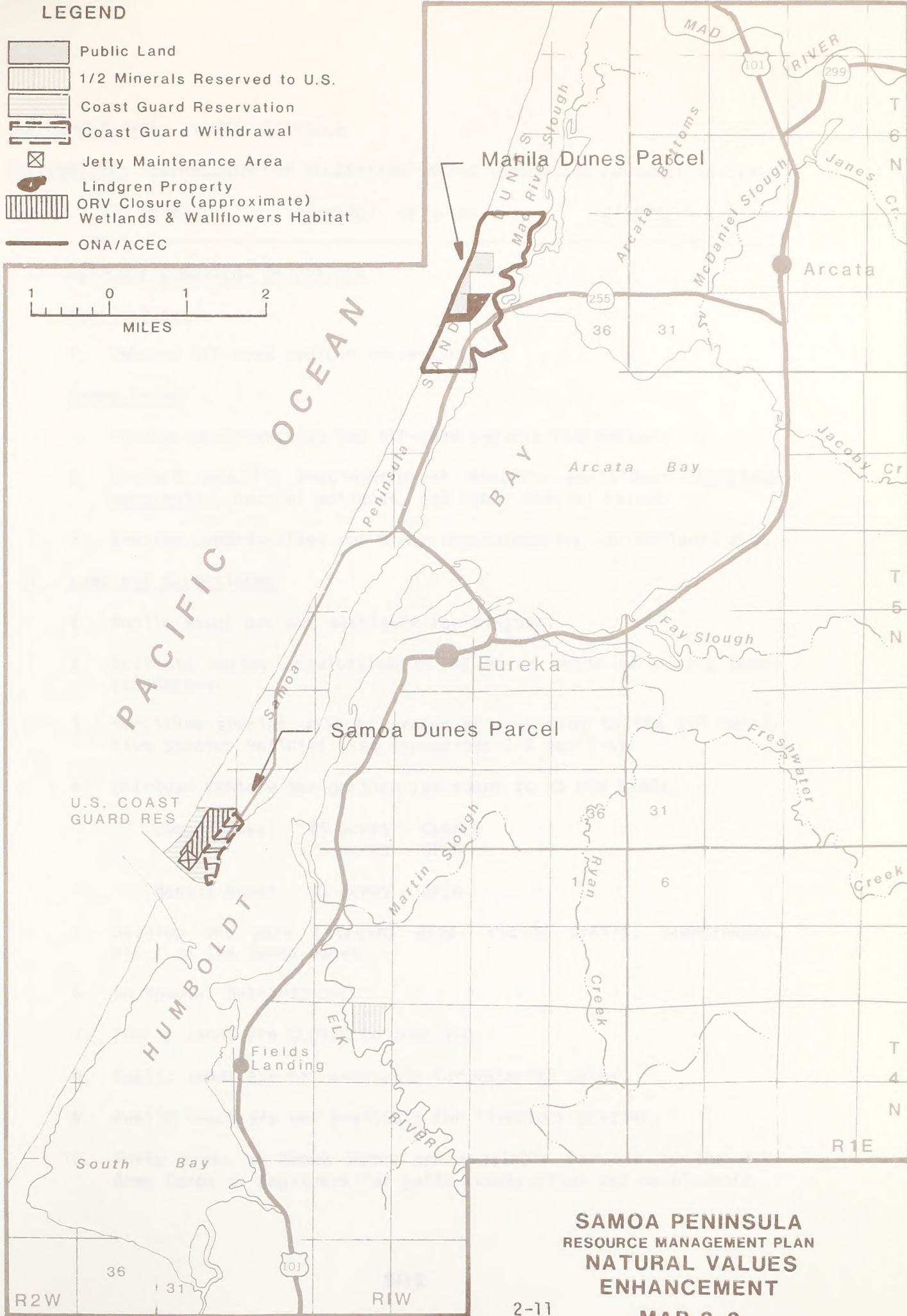
III. MANAGEMENT ACTIONS

1. Federal Register Notices:
  - a. ORV designations
2. Acquire access (by acquisition of Lindgren property) to Manila Dunes.
3. Prepare an ONA/ACEC activity plan for Manila Dunes.
4. Continue to apply for "Green-Sticker" funds for Samoa Dunes.
5. Monitor cultural resources and Menzie's wallflower.
6. Contact universities, local schools, and The Nature Conservancy for expression of interest in research and cooperative management of the Samoa Peninsula.
7. Contact property owners about Manila Dunes acquisition.
8. Post boundaries.

# LEGEND

-  Public Land
-  1/2 Minerals Reserved to U.S.
-  Coast Guard Reservation
-  Coast Guard Withdrawal
-  Jetty Maintenance Area
-  Lindgren Property
-  ORV Closure (approximate)
-  Wetlands & Wallflowers Habitat
-  ONA/ACEC

1 0 1 2  
MILES



## SAMOA PENINSULA RESOURCE MANAGEMENT PLAN NATURAL VALUES ENHANCEMENT

2-11

MAP 2-2





MANAGEMENT AREA: SAMOA PENINSULA

ALTERNATIVE: ENHANCEMENT OF RECREATION VALUES (Emphasize Consumptive Uses)

RETAIN: 370 acres

ACQUIRE: 42 acres

DISPOSE: 0 acres

---

I. RESOURCE CONDITION OBJECTIVES

Manila Dunes:

1. Enhance off-road vehicle recreation.

Samoa Dunes:

1. Provide opportunities for off-road vehicle recreation.
2. Protect specific populations of Menzie's wallflower (Erysimum menziesii), coastal wetlands, and other natural values.
3. Provide opportunities for other nonconsumptive recreational uses.

II. LAND USE ALLOCATIONS

1. Public lands are not available for disposal.
2. Actively pursue acquisition of 42 acres south of Manila Dunes (Lindgren).
3. Sensitive species will be protected according to the BLM Sensitive Species Policies (see Appendices 2-3 and 2-4).
4. Off-Road Vehicle Designation (pursuant to 43 CFR 8340):

Samoa Dunes: 175 acres - CLOSED  
125 acres - OPEN

Manila Dunes: 70 acres - OPEN

5. Develop ORV park (staging area, riding trails, campgrounds, etc.) on the Samoa Dunes.
6. No Special Designations.
7. Public lands are CLOSED to shooting.
8. Public lands are not available for material sales.
9. Public lands are not available for livestock grazing.
10. Forty acres on Samoa Dunes are available for use by the U.S. Army Corps of Engineers for jetty construction and maintenance.



MANAGEMENT AREA: SAMOA PENINSULA

ALTERNATIVE: ENHANCEMENT OF RECREATION VALUES (Emphasize Consumptive Uses)

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III. MANAGEMENT ACTIONS

1. Federal Register notices:
  - a. ORV designations.
2. Acquire access to Manila Dunes.
3. Apply for "Green-Sticker" funding to implement No. 2 above.
4. Monitor cultural resources and Menzie's wallflower.
5. Contact property owners about Manila Dunes acquisition.
6. Sign entrance to blocks regarding ORV designations.
7. Post boundaries.

MANAGEMENT AREA: SAMOA PENINSULA

ALTERNATIVE: ADMINISTRATIVE ADJUSTMENTS

RETAIN: 130 acres

ACQUIRE: 42 acres

DISPOSE: 240 acres

---

I. RESOURCE CONDITION OBJECTIVES

1. Provide opportunities for a wide range of coastal dependent recreational activities including off-road vehicle recreation.
2. Protect specific populations of Menzie's wallflower (Erysimum menziesii), coastal wetlands, and other natural values.
3. Facilitate research and educational uses of unique dune system.
4. Satisfy local community-based recreational and other public purpose needs.

II. LAND USE ALLOCATIONS

1. Dispose of 170 acres of public lands on the Samoa Dunes portion of the management area and the 70-acre Manila Dunes portion to an entity able to fulfill the Resource Condition Objectives above.
2. Actively pursue acquisition of 42 acres south of Manila Dunes (Lindgren property) to improve access. Dispose of this parcel with Manila Dunes.
3. Retain 130 acres on the Samoa Dunes currently withdrawn to the U.S. Coast Guard.
4. Protect sensitive species according to the BLM Sensitive Species Policies (see Appendices 2-3 and 2-4).
5. Off-Road Vehicle Designations (pursuant to 43 CFR 8340):  
  
    Samoa Dunes: 175 acres - CLOSED  
                  125 acres - OPEN  
  
    Manila Dunes: Vehicles will be LIMITED to a narrow corridor which will be identified in an activity plan for the area.
6. Develop ORV park (staging area, riding trails, etc.) on the Samoa Dunes. (See Appendix 1-3.)
7. Designate Manila Dunes as an Outstanding Natural Area (ONA/Area of Critical Environmental Concern (ACEC) for protection and interpretation of natural values.

T. 6 N., R. 1 W., HM, Sections 26, 27, 34, 35.

No Special Designations for the Samoa Dunes parcel.



MANAGEMENT AREA: SAMOA PENINSULA

ALTERNATIVE: ADMINISTRATIVE ADJUSTMENTS

---

II. LAND USE ALLOCATIONS (CONT.)

8. Public lands are CLOSED to firearms shooting, but OPEN to other forms of dispersed, instructional recreation that do not interfere with research or educational values.
9. Public lands are not available for material sales.
10. Public lands are not available for livestock grazing.
11. Forty acres on Samoa Dunes are available for temporary use on a periodic basis by the U.S. Army Corps of Engineers for jetty construction and maintenance.

III. MANAGEMENT ACTIONS

1. Contact potential entities about disposal:
  - a. U.S. Fish and Wildlife Service
  - b. California Department of Parks and Recreation
  - c. Humboldt State University
  - d. Local Schools
  - e. City of Eureka
  - f. The Nature Conservancy
  - g. Humboldt Bay Harbor Recreation and Conservation District
  - h. Humboldt Bay Maritime Museum, Inc.
2. Develop a plan of disposal; prepare Land Report
3. Federal Register notices:
  - a. ORV designations.
4. Acquire access (by acquisition of Lindgren property) to Manila Dunes.
5. Prepare ONA/ACEC activity plan for Manila Dunes.
6. Continue to apply for "Green-Sticker" funds for Samoa Dunes.
7. Monitor cultural resources and Menzie's wallflower.
8. Continue to post boundary, regulation, and information signs.

## Rationale for the Preferred Alternative

The NO ACTION ALTERNATIVE is the PREFERRED ALTERNATIVE.

Samoa Dunes. The Samoa Dunes Off-Road Vehicle Plan was completed in 1982. The objective was to regulate and manage ORV use by segregating recreational uses into zones to limit use conflicts. The majority of the project is to be funded through the California Off-Highway Motor Vehicle Division.

This plan will protect the unique biotic and wetland values, while at the same time allow for ORV use and other more passive recreational activities. A 40-acre portion of the area has already been fenced to protect the existing Menzie's wallflower habitat. Design plans for the area have already been completed.

Manila Dunes. This area is unique both to BLM and to California. It contains active and stabilized sand dunes, wetlands, and sensitive plants. This area is only a few miles from Arcata and Eureka and will provide an outstanding opportunity for environmental education through the local schools and Humboldt State University.

Much of this area is being used by ORVs . This use has caused extensive damage to the dune communities throughout the area. This type of use is unacceptable in such a sensitive area and, therefore, will be limited to a narrow corridor.

Because of its unique natural values this area will be designated as an ACEC. The area itself will be managed through cooperative agreements with Louisiana-Pacific and The Nature Conservancy (TNC). We hope to use TNC and Humboldt State students to develop a plan for the area and to do much of the on-the-ground work.



MANAGEMENT AREA: LACKS CREEK

Four alternatives were generated for this management area. They provide decisionmakers a range of realistic and distinct options relating to the significant issues: State of California indemnity selections, old-growth forest characteristics, and timber production.

1. Timber Production. Emphasizes timber management and consolidation of public land to improve management efficiencies. This is the preferred alternative.
- 2, No Action. This continuation of the present situation effects a level of both timber management and protection of old-growth characteristics.
3. Enhancement of Natural Values. Emphasizes protection and enhancement of old-growth forest characteristics. Assumes protection of an old-growth island within the area is critical.
4. Administrative Adjustments. Recognizes interest for acquisition by State Lands Commission and opportunity for disposal to improve Federal management efficiencies. Assumes that excellence in resource protection and enhancement can be effected through disposal to selected entities.

MANAGEMENT AREA: LACKS CREEK

ALTERNATIVE: TIMBER PRODUCTION/PREFERRED (Emphasize Consumptive Resource Uses)

RETAIN: 4,500 acres surface      ACQUIRE: 1,800 acres      DISPOSE: 0 acres  
500 acres subsurface

---

I. RESOURCE CONDITION OBJECTIVES

1. Increase timber production through intensive management practices.
2. Provide minor forest products (firewood, seeds, poles, etc.) to the market.
3. Improve cost-effectiveness of public land management by consolidation of ownership.

II. LAND USE ALLOCATIONS (See Map 2-3)

1. Public lands are not available for disposal.
2. Actively pursue acquisition of 1,800 acres of high site, well-stocked commercial forest land within the management area for timber management.
3. Manage area for various forest products. Harvest an average of 0.5 MMBF per year from the available forest land. About 100 acres of streamside buffers will be removed from the suitable forest land base of 3,300 acres for a net timber production base of about 3,200 acres.

Tree planting, brush and hardwood release and pre-commercial thinning will be done as part of the forest improvement program associated with this timber harvest as outlined in SYU 13.

4. Off-Road Vehicle Designations (pursuant to 43 CFR 8340):

Vehicles are LIMITED to roads; roads are defined as transportation facilities designed for highway vehicles having four or more wheels.

5. No Special Area Designations.
6. Public lands are available for dispersed, unstructured recreation.



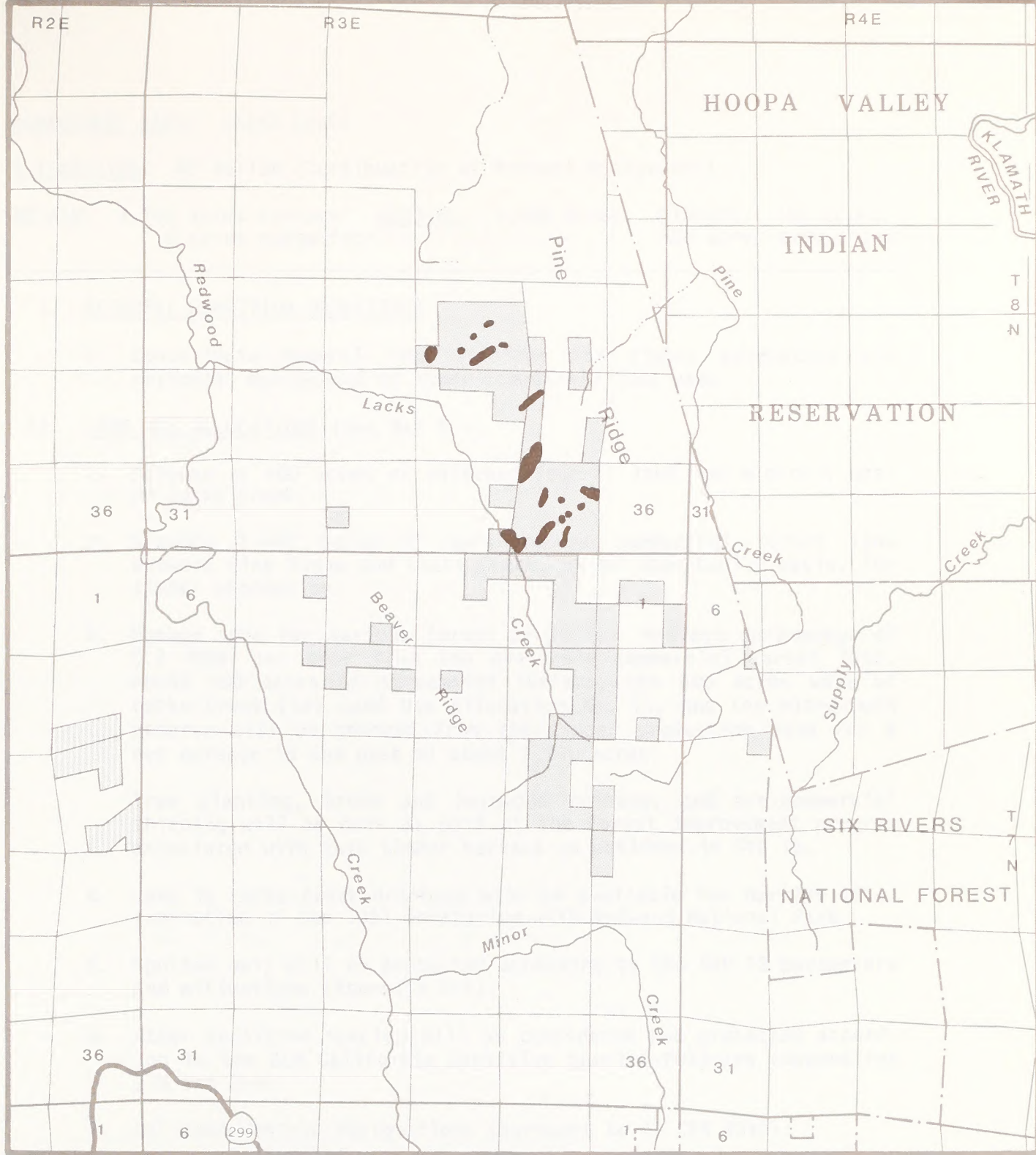
MANAGEMENT AREA: LACKS CREEK

ALTERNATIVE: TIMBER PRODUCTION/PREFERRED (Emphasize Consumptive Resource Uses)

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### III. MANAGEMENT ACTIONS

1. Prepare a Watershed Activity Plan to reflect (not exclusively):
  - a. Monitoring of Redwood Creek in conjunction with Redwood National Park.
  - b. Rehabilitation of Lacks Creek drainage.
  - c. Fire management - including suppression.
2. Include this MA in timber management/rehabilitation plans. Logging will begin after the 1991 moratorium with Redwood National Park. Prepare a new computer run to refine the annual allowable cut.
3. Federal Register notices:
  - a. ORV designations.
4. Sign entrance to block regarding ORV designations.
5. Acquire nonexclusive/permanent access to all public land without access for timber production and protection.
6. Contact surrounding landowners about acquisition; re: Land Use Allocation No. 2.
7. Prepare Land Report(s) to address:
  - a. Specific acquisition methods (regarding No. 6 above).
  - b. Site-specific requirements and problems.
8. Monitor spotted owls.
9. Post boundaries.



# LEGEND

- Public Land
- Minerals Reserved to U.S.
- "Old-growth" Timber Stand







1. ROUTE  
 2. SCALE  
 3. DISTANCE  
 4. TIME



LACK & CO.  
 100-1000  
 100-1000  
 100-1000



### ALTERNATIVE: NO ACTION (Continuation of Present Management)

## I. RESOURCE CONDITION OBJECTIVES

- ## II. LAND USE ALLOCATIONS (See Map 2-4)

- Tree planting, brush and hardwood release, and pre-commercial thinning will be done as part of the forest improvement program associated with this timber harvest as outlined in SYU 13.

- Vehicles are LIMITED to roads; roads are defined as transportation facilities designed for highway vehicles having four or more wheels.



MANAGEMENT AREA: LACKS CREEK

ALTERNATIVE: NO ACTION (Continuation of Present Management)

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II. LAND USE ALLOCATIONS (CONT.)

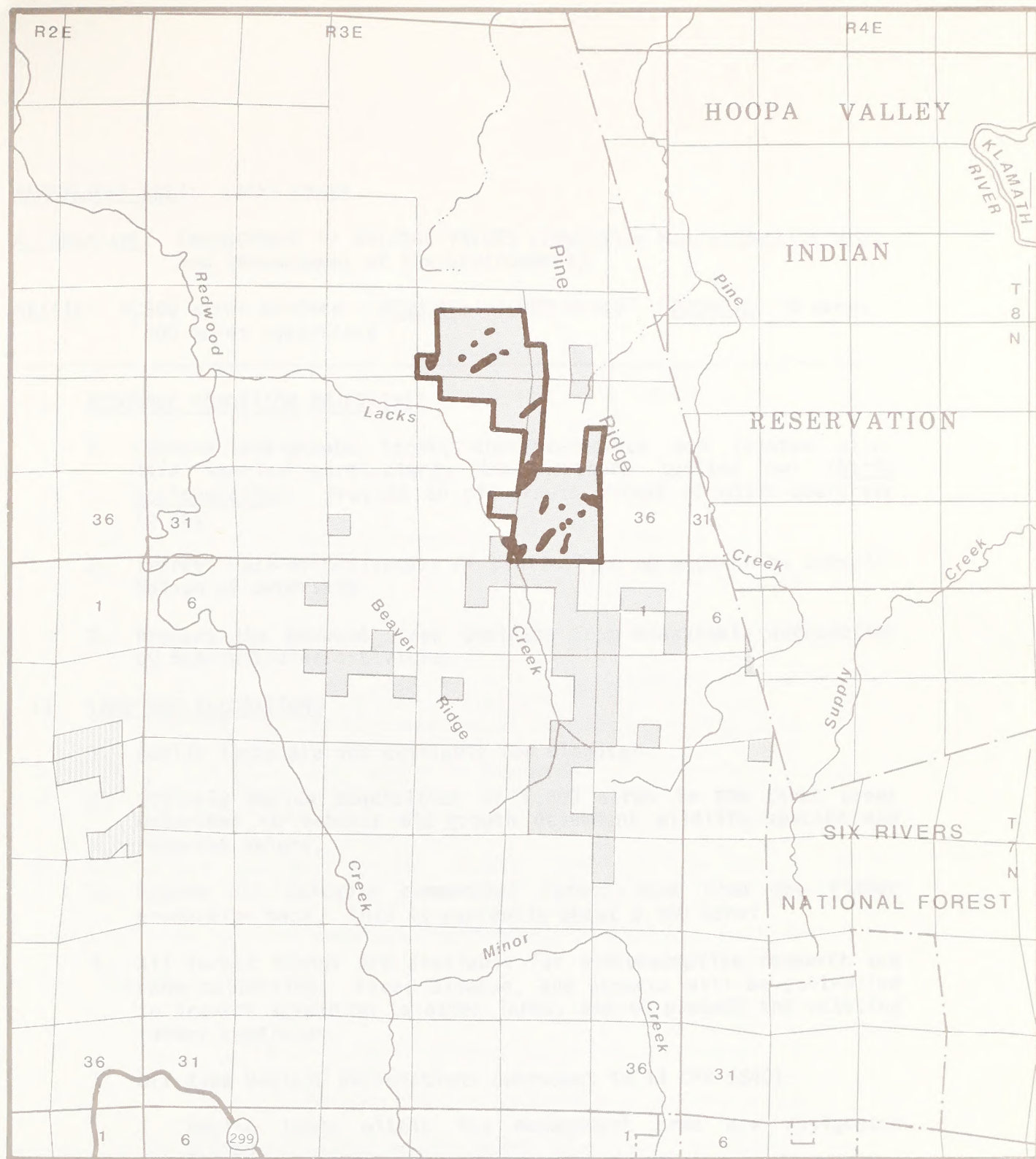
8. Designate the 1,800-acre candidate old-growth reserve as Research Natural Area (RNA)/Area of Critical Environmental Concern (ACEC) for the preservation of old-growth values.

T. 8 N., R. 3 E., HM, Sections 22, E1/2SW1/4 23, E1/2NW1/4 26, 27

9. Public lands are available for dispersed, unstructured recreation.
10. The RNA/ACEC is not available for mineral material sales.
11. The RNA/ACEC is not available for livestock grazing.

III. MANAGEMENT ACTIONS

1. Include Lacks Creek MA in the timber management/rehabilitation plans. Logging will begin in the Lacks Creek watershed after the moratorium ends. Prepare a computer run for the annual allowable cut.
2. Federal Register notices:
  - a. ORV designations
3. Sign entrance to block regarding ORV designations.
4. Acquire nonexclusive/permanent access to all public land for timber production and protection.
5. Monitor spotted owls.
6. Post boundaries.



# LEGEND

- Public Land
- Minerals Reserved to U.S.
- RNA/ACEC
- "Old-growth" Timber Stand





ALABAMA  
JULY 1964  
JULY 1964

MANAGEMENT AREA: LACKS CREEK

ALTERNATIVE: ENHANCEMENT OF NATURAL VALUES (Emphasize Nonconsumptive Uses and Enhancement of the Environment)

RETAIN: 4,500 acres surface    ACQUIRE: 1,800 acres    DISPOSE: 0 acres  
500 acres subsurface

---

I. RESOURCE CONDITION OBJECTIVES

1. Enhance old-growth forest characteristics and related wild-life species--particularly the northern spotted owl (Strix occidentalis). Provide an old-growth island of mixed-evergreen forest.
2. Improve cost-effectiveness of public land management by consolidation of ownership.
3. Protect the Redwood Creek drainage from measurable degradation by BLM-initiated activities.

II. LAND USE ALLOCATIONS

1. Public lands are not available for disposal.
2. Actively pursue acquisition of 1,800 acres in the Lacks Creek watershed to enhance old-growth dependent wildlife species and riparian values.
3. Remove all suitable commercial forest land from the timber production base. This is currently about 3,300 acres.
4. All forest stands are available for nonconsumptive research and cone collecting. Fire, disease, and insects will be controlled to prevent spreading to other lands, and to protect the existing forest condition.
5. Off-Road Vehicle Designations (pursuant to 43 CFR 8340):  

Public lands within the management area are designated CLOSED.
6. Designate all public lands (surface only) in the management area as Research Natural Area (RNA)/Area of Critical Environmental Concern (ACEC) for preservation of old-growth values.

T. 8 N., R. 3 E., HM, Sections 22, 23, 26, 27, 33, 34, 35.  
T. 7 N., R. 3 E., HM, Sections 1-5, 8-14, 24.



MANAGEMENT AREA: LACKS CREEK

ALTERNATIVE: ENHANCEMENT OF NATURAL VALUES (Emphasize Nonconsumptive Uses and Enhancement of the Environment)

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7. Public lands are available for dispersed, unstructured recreation.
8. Public lands within the RNA/ACEC are not available for mineral material sales.
9. Public lands are not available for livestock grazing.

III. MANAGEMENT ACTIONS

1. Monitor old-growth forest characteristics.
2. Monitor known cultural resources.
3. Federal Register notices:
  - a. ORV designations.
4. Sign entrance to public lands regarding ORV designations.
5. Acquire nonexclusive/permanent access to all public land parcels without access for research, protection, and other administrative needs.
6. Contact universities/research institutions for expressions of interest in conducting research.
7. Contact surrounding landowners about acquisitions; re: Land Use Allocation No. 2.
8. Prepare Land Report(s) to address:
  - a. Specific acquisition methods (regarding No. 7).
  - b. Site-specific inventories/requirements.
9. Prepare a Coordinated Resource Management Plan to reflect (not exclusively):
  - a. Monitoring of Redwood Creek with Redwood National Park.
  - b. Rehabilitation of Lacks Creek watershed.
  - c. Fire management--including suppression.
10. Post boundaries.

MANAGEMENT AREA: LACKS CREEK

ALTERNATIVE: ADMINISTRATIVE ADJUSTMENTS

RETAIN: 0 acres      ACQUIRE: 0 acres      DISPOSE: 4,500 acres surface  
500 acres subsurface

---

I. RESOURCE CONDITION OBJECTIVES

1. Enhance manageability of public lands and improve cost-effectiveness of resource management by consolidation of Federal interests in areas of high visibility and significant Federal ownership.
2. Satisfy the State of California in-lieu entitlements.

II. LAND USE ALLOCATIONS

1. Dispose of all Federal interests including minerals.
2. Keep all suitable commercial forest land in timber production pending disposal.
3. Public lands are not available for livestock grazing.
4. Off-Road Vehicle Designations (pursuant to 43 CFR 8340):

Vehicles are LIMITED to roads; roads are defined as transportation facilities designed for highway vehicles having four or more wheels.

5. No Special Designations.
6. Dispersed, unstructured recreation is allowed.

III. MANAGEMENT ACTIONS

1. Contact potential selectors for disposal of public lands and resources (not exclusively):
  - a. National Park Service;
  - b. California State Lands Commission;
  - c. Surrounding timber companies;
  - d. Others.



MANAGEMENT AREA: LACKS CREEK

ALTERNATIVE: ADMINISTRATIVE ADJUSTMENTS

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2. Prepare Land Report(s) to address:
  - a. Specific disposal methods and time frames (based on No. 1 above).
  - b. Site-specific inventories and requirements:
    - i. Cultural resources.
    - ii. T&E species.
3. Federal Register notices:
  - a. ORV Designations.
4. Sign entrance to blocks regarding ORV designations.

## Rationale for the Preferred Alternative

The TIMBER PRODUCTION ALTERNATIVE is the PREFERRED ALTERNATIVE.

Approximately 1,800 acres of this area were identified as a candidate old-growth reserve area, but inventory indicates the area does not meet the minimum criteria for a viable old-growth reserve. Proximity to the Redwood National Park and considering that much of the area will be protected from timber harvest because of the timber production capability classification, the Lacks Creek old-growth reserve is dropped from further consideration.

This area contains fairly significant timber values, 32 MMBF of commercial softwoods and over 7,000 cords of fuelwood. It can provide a yield over the first rotation period of 0.5 MMBF per year. The area is readily accessible; most of the necessary road system is in place.

Adjacent landowners have indicated a high priority for forest management and their lands could be future acquisition. If other Resource Area lands are made available for exchange they should be used to block up high quality commercial forest lands in this management area.



## MANAGEMENT AREA: BUTTE CREEK

Five alternatives were generated for this management area. They provide decisionmakers a range of realistic and distinct options relating to the significant issues: State of California indemnity selections, old-growth forest characteristics, spotted owls, and timber management.

1. Enhancement of Natural Values. Emphasizes protection and enhancement of old-growth mixed evergreen forest characteristics and spotted owl habitat. Proposes designation as a Research Natural Area and Area of Critical Environmental Concern. Assumes that providing an old-growth island and spotted owl habitat in this area is more critical than timber production. This is the preferred alternative.
2. Timber Production: Emphasize timber management and consolidation of public land to improve efficiencies. Assumes timber is more critical than old-growth characteristics or spotted owl habitat in this particular area.
3. Natural History. Proposes one high-quality old-growth island based on a variety of values, and proposes intensive timber management on a separate tract.
4. No Action. Proposes a mixture of timber management and protection of spotted owl habitat throughout the management area. Assumes timber management and spotted owls can successfully coexist on small tracts of land.
5. Administrative Adjustments. Recognizes interest for acquisition by State Lands Commission and opportunities for disposal to improve Federal management efficiencies. Assumes that excellence in resource protection and enhancement can be achieved through disposal to selected entities and that more significant Federal interests lie elsewhere.

MANAGEMENT AREA: BUTTE CREEK

ALTERNATIVE: ENHANCEMENT OF NATURAL VALUES/PREFERRED (Emphasize  
Nonconsumptive Uses and Enhancement of the Environment)

RETAIN: 2,500 acres surface      ACQUIRE: 900 acres      DISPOSE: 0 acres  
1,500 acres subsurface

---

I. RESOURCE CONDITION OBJECTIVES

1. Enhance old-growth forest characteristics and related wild-life species--particularly the northern spotted owl (Strix occidentalis).
2. Improve cost-effectiveness of public land management by consolidation of ownership.
3. Enhance riparian condition in Butte Creek.

II. LAND USE ALLOCATION (See Map 2-5)

1. Public lands within the management area are not available for disposal.
2. Actively pursue acquisition of 900 acres of land in the Butte Creek watershed to enhance old-growth dependent wildlife species and riparian condition.
3. Remove all suitable commercial forest land from the timber production base. This is currently about 2,100 acres.
4. All forest stands are available for nonconsumptive research and cone collecting. Fire, disease, and insects will be controlled to prevent spreading to other lands, and to protect the existing forest.
5. Off-Road Vehicle Designations (pursuant to 43 CFR 8340):

Public lands within the management area are designated CLOSED, except for Butte Creek and Larabee Butte access roads, No. 5107 and No. 5112, respectively.

6. Designate all public lands in the management area as Research Natural Area (RNA)/Area of Critical Environmental Concern (ACEC) for the preservation of old-growth values.

T. 1 N., R. 4 E., HM, Sections 17, 20, 21, 22, 23, 27, 34, 35.  
T. 1 S., R. 4 E., HM, Sections 1, 2, 3.

7. Public lands within the RNA/ACEC (including mineral reserve lands) are not available for material sales.
8. Public lands are not available for livestock grazing.



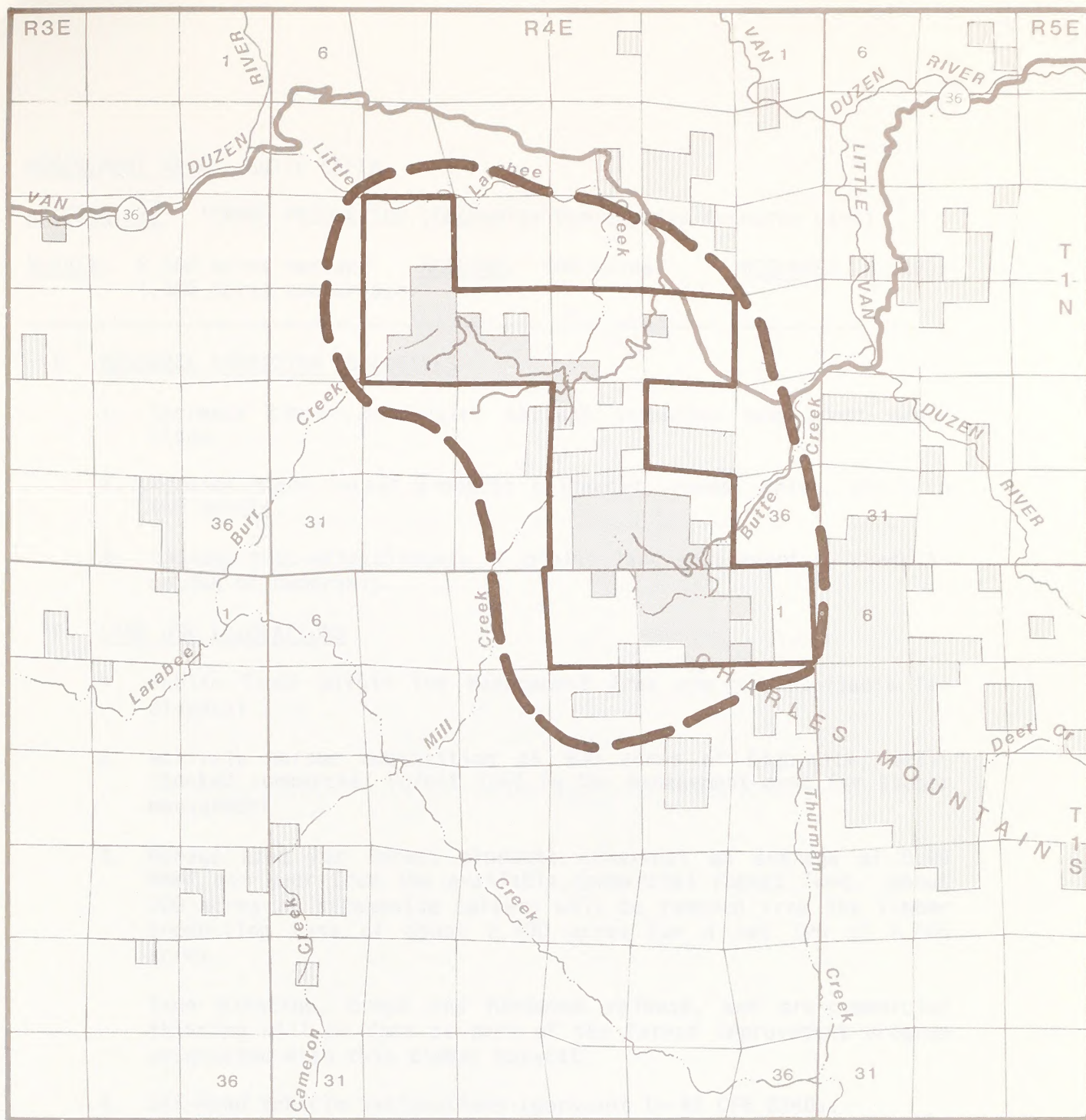
MANAGEMENT AREA: BUTTE CREEK

ALTERNATIVE: ENHANCEMENT OF NATURAL VALUES/PREFERRED (Emphasize  
Nonconsumptive Uses and Enhancement of the Environment)





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### III. MANAGEMENT ACTIONS

1. Monitor spotted owls and other old-growth characteristics.
2. Federal Register notices:
  - a. ORV designations.
3. Sign entrance to block regarding ORV designations.
4. Contact universities/research institutions for expressions of interest in conducting research.
5. Contact surrounding landowners about acquisitions.
6. Prepare Land Report(s) to address:
  - a. Specific acquisition methods (regarding No. 5 above).
  - b. Site-specific inventories/requirements.
7. Prepare a RNA/ACEC Activity Plan.
8. Post boundaries.



#### LEGEND

-  Public Land
-  Minerals Reserved to U.S.
-  Management Area Boundary
-  RNA/ACEC

### BUTTE CREEK RESOURCE MANAGEMENT PLAN PREFERRED ALTERNATIVE







ROUTE 200  
ALABAMA  
THE STATE OF ALABAMA

MANAGEMENT AREA: BUTTE CREEK

ALTERNATIVE: TIMBER PRODUCTION (Emphasize Consumptive Resource Uses)

RETAIN: 2,500 acres surface      ACQUIRE: 900 acres      DISPOSE: 0 acres  
1,500 acres subsurface

---

I. RESOURCE CONDITION OBJECTIVES

1. Increase timber production through intensive management practices.
2. Provide minor forest products (firewood, seeds, poles, etc.) to the market.
3. Improve cost-effectiveness of public land management by consolidation of ownership.

II. LAND USE ALLOCATIONS

1. Public lands within the Management Area are not available for disposal.
2. Actively pursue acquisition of 900 acres of high-site, well-stocked commercial forest land in the management area for timber management.
3. Manage area for forest products. Harvest an average of 0.85 MMBF per year from the available commercial forest land. About 100 acres of streamside buffers will be removed from the timber production base of about 2,100 acres for a net TPB of 2,000 acres.

Tree planting, brush and hardwood release, and pre-commercial thinning will be done as part of the forest improvement program associated with this timber harvest.

4. Off-Road Vehicle Designations (pursuant to 43 CFR 8340):

Vehicles are LIMITED to roads; roads are defined as transportation facilities designed for highway vehicles having four or more wheels.

5. No Special Designations.
6. Public lands are available for dispersed, unstructured recreation.



MANAGEMENT AREA: BUTTE CREEK

ALTERNATIVE: TIMBER PRODUCTION (Emphasize Consumptive Resource Uses)

---

### III. MANAGEMENT ACTIONS

1. Include this management area in timber management and rehabilitation plans. Prepare a computer run to refine the annual allowable cut.
2. Federal Register notices:
  - a. ORV designations.
3. Sign entrance to block regarding ORV designations.
4. Acquire nonexclusive/permanent access where necessary for timber production.
5. Contact surrounding landowners about acquisitions.
6. Prepare Land Report(s) to address:
  - a. Site-specific requirements/problems.
  - b. Specific acquisition methods (regarding No. 5 above).
7. Monitor spotted owls.
8. Post boundaries.

MANAGEMENT AREA: BUTTE CREEK

ALTERNATIVE: NATURAL HISTORY (Protect Old-Growth Characteristics and Intensively Manage Timber on Separate Tracts)

RETAIN: 2,500 acres surface      ACQUIRE: 1,800 acres      DISPOSE: 0 acres  
1,500 acres subsurface

---

I. RESOURCE CONDITION OBJECTIVES

1. Enhance old-growth characteristics as defined by old-growth forest characteristics (Appendix 1-1).
2. Provide an old-growth island of mixed-evergreen forest of about 1,235 acres in the Butte Creek block.
3. Consolidate Federal land holdings in the Larabee Butte block for intensive timber production where it does not interfere with Resource Condition Objective No. 1.

II. LAND USE ALLOCATIONS (See Map 2-6)

1. Public lands within the Management Area are not available for disposal.
2. Actively pursue acquisition of 900 acres of land in the Butte Creek watershed to enhance old-growth values.
3. Actively pursue acquisition of 900 acres of high-site, well-stocked commercial forest land near the Larabee Butte block for timber production.
4. Remove all suitable commercial forest land in the Butte Creek block from timber production base for preservation of the old-growth characteristics. This is about 1,235 acres.
5. Harvest an annual average of about 0.4 MMBF from the available forest land in the Larabee Butte block. About 40 acres of streamside buffers will be removed from the suitable forest base leaving a net production base of about 825 acres.

Tree planting, brush and hardwood release, and pre-commercial thinning will be done as part of the forest improvement program associated with this timber harvest as outlined in SYU 13.

6. All forest stands within the management area are available for nonconsumptive research and cone collecting. Fire, disease, and insects will be controlled to prevent spreading to other lands, and to protect the existing forest.
8. Off-Road Vehicle Designations (pursuant to 43 CFR 8340):

Public lands within the Butte Creek block of the management area are designated CLOSED.



MANAGEMENT AREA: BUTTE CREEK

ALTERNATIVE: NATURAL HISTORY (Protect Old-Growth Characteristics)

---

## II. LAND USE ALLOCATIONS (CONT.)

Larabee Butte block: Vehicles are LIMITED to roads; roads are defined as transportation facilities designed for highway vehicles having four or more wheels.

9. Designate the Butte Creek block as Research Natural Area (RNA)/Area of Critical Environmental Concern (ACEC) for preservation of old-growth values.

T. 1 N., R. 4 E., HM, Sections 34, 35, 36.

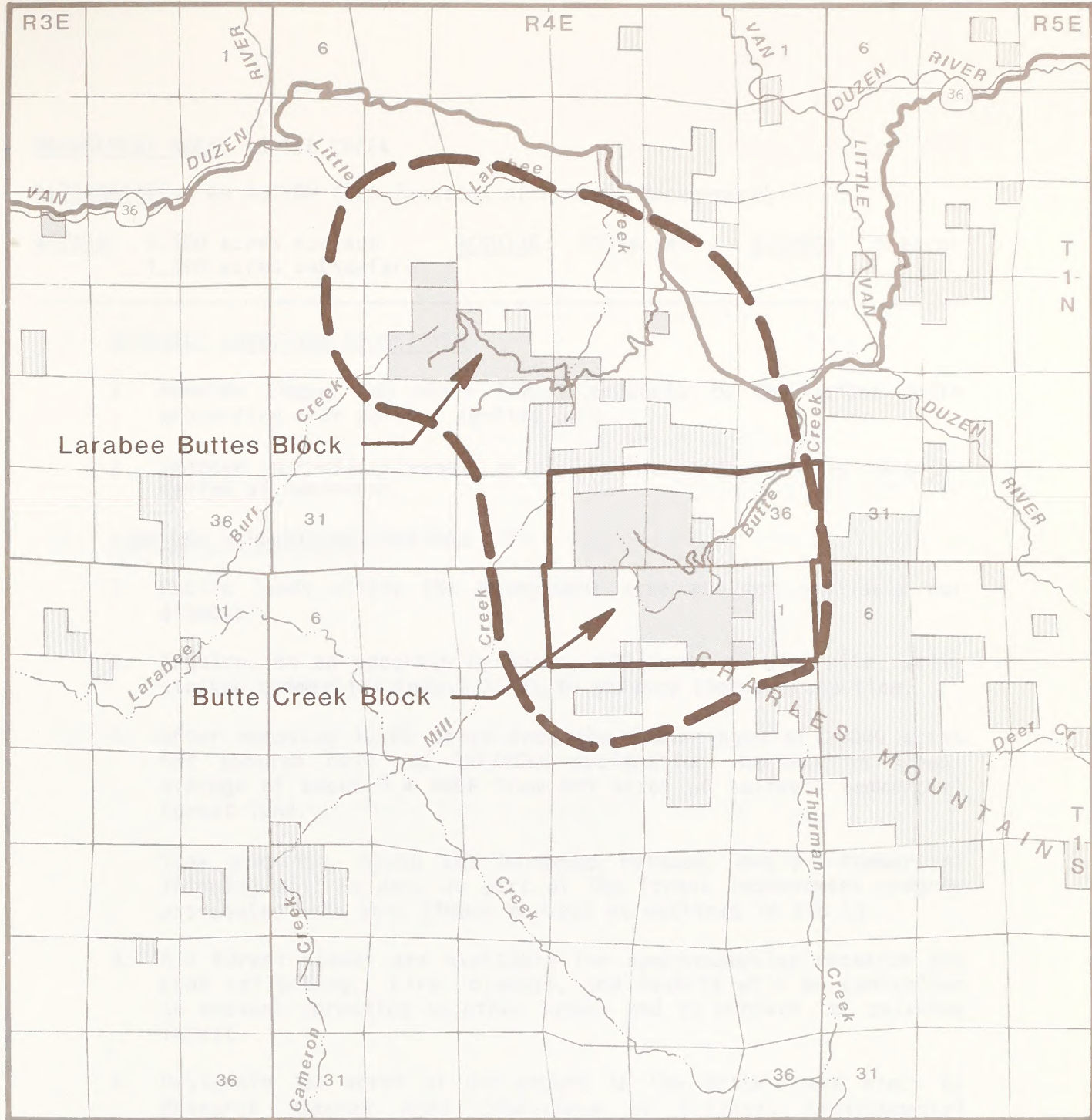
T. 1 S., R. 4 E., HM, Sections 1, 2, 3, 11, and 12.

No Special Designations for Larabee Butte block.





10. Public lands are available for dispersed, unstructured recreation.
11. The Butte Creek RNA/ACEC is not available for mineral material sales.
12. The Butte Creek RNA/ACEC is not available for livestock grazing.

## III. MANAGEMENT ACTIONS

1. Monitor spotted owls/old-growth characteristics.
2. Federal Register notices:
  - a. ORV designations.
3. Sign entrance to block regarding ORV designations.
4. Contact surrounding landowners about acquisitions.
5. Contact universities/research institutions for expressions of interest in conducting research in the Butte Creek block.
6. Prepare Land Report(s) to address:
  - a. Site-specific requirements/inventories.
  - b. Specific acquisition methods (regarding No. 5 above).
7. Prepare an ACEC Activity Plan for Butte Creek block.
8. Post boundaries.



### LEGEND

-  Public Land
-  Minerals Reserved to U.S.
-  Management Area Boundary
-  RNA/ACEC

## BUTTE CREEK RESOURCE MANAGEMENT PLAN

### NATURAL HISTORY ALTERNATIVE







MANAGEMENT AREA: BUTTE CREEK

ALTERNATIVE: NO ACTION (Continuation of Present Management)

RETAIN: 2,500 acres surface      ACQUIRE: 900 acres      DISPOSE: 0 acres  
1,500 acres subsurface

---

I. RESOURCE CONDITION OBJECTIVES

1. Provide timber and other forest products to the market while protecting four pair of spotted owls.
2. Improve cost-effectiveness of public land management by consolidation of ownership.

II. LAND USE ALLOCATIONS (See Map 2-7)

1. Public lands within the management area are not available for disposal.
2. Acquire, on an opportunity basis, 900 acres of high-site, well-stocked commercial forest lands to enhance timber production.
3. After removing 1,200 acres from the timber base of 2,000 acres for spotted owls and RNA/ACEC designation, harvest an annual average of about 0.4 MMBF from 800 acres of suitable commercial forest land.

Tree planting, brush and hardwood release, and pre-commercial thinning will be done as part of the forest improvement program associated with this timber harvest as outlined in SYU 13.

4. All forest stands are available for nonconsumptive research and cone collecting. Fire, disease, and insects will be controlled to prevent spreading to other lands, and to protect the existing forest.
5. Designate 360 acres of old-growth in the Butte Creek block as Research Natural Area (RNA)/Area of Critical Environmental Concern (ACEC) for the preservation of old-growth values.
6. Off-Road Vehicle Designations (pursuant to 43 CFR 8340):

Public Lands within the RNA/ACEC of the management area are designated CLOSED.

Remaining public lands: Vehicles are LIMITED to roads; roads are defined as transportation facilities designed for highway vehicles having four or more wheels.



MANAGEMENT AREA: BUTTE CREEK

ALTERNATIVE: NO ACTION (CONTINUATION OF PRESENT MANAGEMENT)

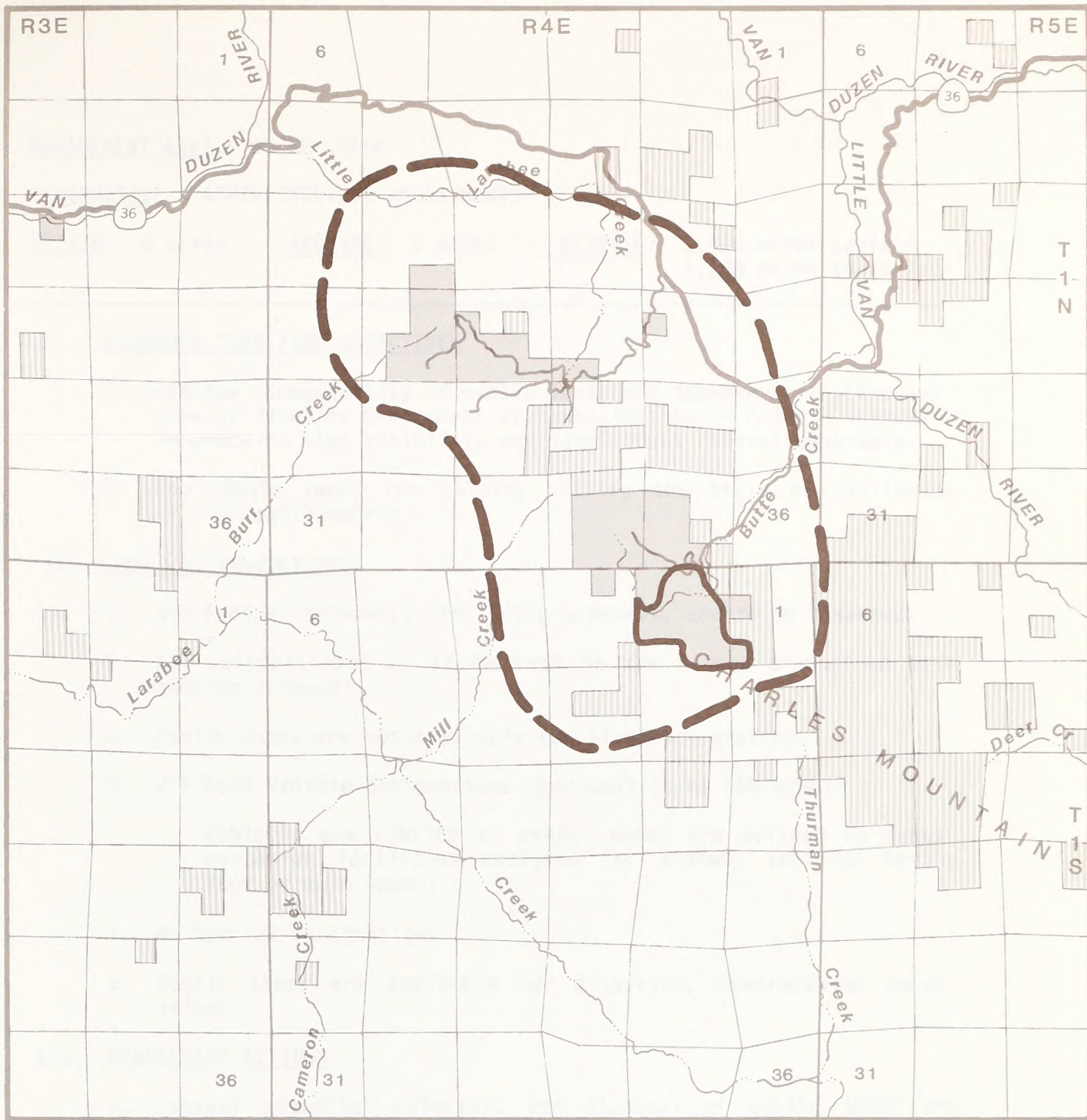
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II. LAND USE ALLOCATIONS (CONT.)

7. Public lands are available for dispersed, unstructured recreation.
8. The RNA/ACEC is not available for mineral material sales.
9. The RNA/ACEC is not available for livestock grazing.

III. MANAGEMENT ACTIONS

1. Prepare a computer run to refine the annual allowable cut.
2. Federal Register notices:
  - a. ORV designations.
3. Sign entrance to block regarding ORV designations.
4. Acquire nonexclusive/permanent access where necessary for timber production and protection.
5. Monitor spotted owls and old-growth characteristics.
6. Post boundaries.



# LEGEND

- Public Land
- Minerals Reserved to U.S.
- Management Area Boundary
- RNA/ACEC

## BUTTE CREEK RESOURCE MANAGEMENT PLAN NO ACTION ALTERNATIVE







Legend  
State  
County  
City  
Town  
Village  
Unincorporated Area

NO ACTION ALTERNATIVE  
STATE OF OHIO  
COUNTY OF CUYAHOGA

MANAGEMENT AREA: BUTTE CREEK

ALTERNATIVE: ADMINISTRATIVE ADJUSTMENTS

RETAIN: 0 acres      ACQUIRE: 0 acres      DISPOSE: 2,500 acres surface  
1,500 acres subsurface

---

I. RESOURCE CONDITION OBJECTIVES

1. Enhance manageability of public lands and improve cost-effectiveness of resource management by consolidation of Federal interests in areas of high visibility and significant Federal ownership.
2. Use public lands for helping satisfy the State of California in-lieu entitlements.

II. LAND USE ALLOCATIONS

1. All Federal interests, including minerals, are to be disposed.
2. All suitable land is to be kept in the timber production base pending disposal.
3. Public lands are not available for livestock grazing.
4. Off-Road Vehicle Designations (pursuant to 43 CFR 8340):

Vehicles are LIMITED to roads; roads are defined as transportation facilities designed for highway vehicles having four or more wheels.

5. No Special Designations.
6. Public lands are available for dispersed, unstructured recreation.

III. MANAGEMENT ACTIONS

1. Contact potential selectors for disposal of public lands and resources (not exclusively):
  - a. California State Lands Commission.
  - b. Surrounding timber companies.
  - c. Surrounding landowners.



MANAGEMENT AREA: BUTTE CREEK

ALTERNATIVE: ADMINISTRATIVE ADJUSTMENTS

---

III. MANAGEMENT ACTIONS (CONT.)

2. Prepare Land Report(s) to address:
  - a. Specific disposal methods and time frames (based on No. 1 above).
  - b. Site-specific inventories/requirements:
    - i. Cultural resources.
    - ii. T&E species.
3. Sign entrance to block regarding ORV designations.

## Rationale for the Preferred Alternative

The ENHANCEMENT OF NATURAL VALUES ALTERNATIVE is the PREFERRED ALTERNATIVE.

The Enhancement of Natural Values Alternative is the Preferred Alternative. This is the most significant area in numbers of spotted owls on public lands within the Arcata Resource Area and this area may be significant to the dispersal of spotted owls in northern California. While it is also the Resource Area's most productive timberland, realistically spotted owls and timber management cannot be expected to coexist indefinitely on the same small block of land.

### Specific considerations:

- Bureau Manual 6840 states, in part, "The fundamental objective is to maintain or increase current population levels of sensitive animals."
- The Bureau's policy for sensitive species management has a goal of "preventing deterioration of sensitive species habitat thereby precluding the need for listing those species," and that to do this we should "promote the enhancement of sensitive species habitat."
- Area contains four breeding pair of spotted owls.
- Inadequate information exists for spotted owls generally, within their range, on juvenile survival, first reproductive age and rate, and dispersal of birds (Audubon 1986). Until there is better information available we should be cautious in making resource decisions that may upset the current balance.
- The Butte Creek area is about 10 miles from Forest Service Spotted Owl Management Areas (SOMAs) and from State Parks having old-growth forests. The Butte Creek management area may provide an island or stepping stone to aid owls in dispersal.
- Area has excellent old-growth characteristics with a large owl population, and is an outstanding candidate for RNA/ACEC status.



## MANAGEMENT AREA: KING RANGE VICINITY

There are no identified critical resource issues for this management area. The King Range National Conservation Area and this RMP proposes consistency with the King Range Management Program for land juxtaposed to the National Conservation Area. The issue of land tenure and adjustment is relevant to this management area; because of the significant BLM management presence in the area this is a logical area within which to consolidate land and resources for management efficiency. Two alternatives are offered with only minor differences.

1. Enhancement of Natural Values. Emphasizes enhancement of coastal watersheds and visual resources, ensures consistency with the King Range Management Program, and provides a logical geographic focus for long-term BLM management.
2. No Action. Recognizes the same basic resource values as the option above; proposes disposal of scattered, disjunct tracts between the King Range National Conservation Area and the Mattole River. The historic use of these tracts has been for consolidation within the King Range.

MANAGEMENT AREA: KING RANGE VICINITY

ALTERNATIVE: ENHANCEMENT OF NATURAL VALUES/PREFERRED (Emphasize Nonconsumptive Uses and Enhancement of the Environment)

RETAIN: 3,740 acres surface      ACQUIRE: 2,200 acres      DISPOSE: 160 acres  
3,200 acres subsurface

---

I. RESOURCE CONDITION OBJECTIVES

1. Enhance the watershed condition and visual quality of coastal streams.
2. Improve cost-effectiveness of public land management by consolidation of ownership.
3. Ensure consistency with the existing King Range Management Program. Lands contiguous to the National Conservation Area will be managed consistent with the "Zone" prescriptions which they abut. This involves Zones 2, 6, and 7.

II. LAND USE ALLOCATIONS (See Map 2-8)

1. Retain all public land between the King Range National Conservation Area and the Mattole River, except 160 acres of public land within the boundary of the Sinkyone Wilderness State Park and the Eubanks Creek which will be available for acquisition by the California Department of Parks and Recreation to enhance management of the State Park.
2. Actively pursue acquisition of 1,200 acres of land along Four Mile Creek and Cooskie Creek to enhance the riparian values and visual resources.
3. Remove 900 acres of suitable commercial forest land west of Cooskie Ridge from the timber production base. Include all other suitable commercial forest land in the management area, except for streamside buffers, in the timber production base. No annual allowable cut is planned for the next 100 years.
4. Actively pursue acquisition of 1,000 acres of high-site, well-stocked commercial forest land adjacent to Zone 6 in the King Range National Conservation Area (Jewett Ridge and Bear Creek) for timber management.
5. Off-Road Vehicle Designations (pursuant to 43 CFR 8340):

Public lands west of Cooskie Ridge within the management area are designated CLOSED.

Lands east of Cooskie Ridge: Vehicles are LIMITED to roads; roads are defined as transportation facilities designed for highway vehicles having four or more wheels.



MANAGEMENT AREA: KING RANGE VICINITY

ALTERNATIVE: ENHANCEMENT OF NATURAL VALUES/PREFERRED (Emphasize Nonconsumptive Uses and Enhancement of the Environment)

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II. LAND USE ALLOCATIONS (CONT.)

6. No Special Designations.
7. Public lands are available for dispersed, unstructured recreation.

III. MANAGEMENT ACTIONS

1. Federal Register notices:
  - a. ORV designations.
2. Sign entrance to blocks regarding ORV designations.
3. Post boundaries.









MANAGEMENT AREA: KING RANGE VICINITY

ALTERNATIVE: NO ACTION (Continuation of Present Management)

RETAIN: 2,800 acres surface      ACQUIRE: 1,200 acres      DISPOSE: 1,100 acres  
3,200 acres subsurface

---

I. RESOURCE CONDITION OBJECTIVES

1. Enhance the watershed condition and visual quality of coastal streams.
2. Ensure consistency with the existing King Range Management Plan. Lands contiguous to the National Conservation Area will be managed consistent with the "Zone" prescriptions which they abut. This involves Zones 2, 6, and 7 (see King Range National Conservation Area Management Program).
3. Provide an exchange base for acquisition of land within the King Range National Conservation Area.

II. LAND USE ALLOCATIONS

1. Retain public land contiguous to the King Range National Conservation Area. Scattered tracts between the King Range and the Mattole River are available for disposal. Public lands within the boundary of the Sinkyone Wilderness State Park are available for acquisition by the California Department of Parks and Recreation to enhance management of the State Park.
2. Actively pursue acquisition of 1,200 acres of land along Four Mile Creek and Cooskie Creek to enhance the riparian values and visual resources.
3. Remove 900 acres of suitable commercial forest land west of Cooskie Ridge from the timber production base. The remaining 1,670 acres of suitable commercial forest land in the management area, except for streamside buffers, is included in the timber production base. No annual allowable cut is planned for the next 100 years.

Tree planting, brush and hardwood release, and pre-commercial thinning will be done as part of the forest improvement program associated with this timber harvest.

4. Off-Road Vehicle Designations (pursuant to 43 CFR 8340):

Public lands west of Cooskie Ridge within the management area are designated CLOSED.



MANAGEMENT AREA: KING RANGE VICINITY

ALTERNATIVE: NO ACTION (Continuation of Present Management)

---

## II. LAND USE ALLOCATIONS (CONT.)

Lands east of Cooskie Ridge: Vehicles are LIMITED to roads; roads are defined as transportation facilities designed for highway vehicles having four or more wheels.

5. No Special Designations.
6. Public lands are available for dispersed, unstructured recreation.

## III. MANAGEMENT ACTIONS

1. Federal Register notices:
  - a. ORV designations.
2. Sign entrance to public lands regarding ORV designations.
3. Post boundaries.
4. Contact California Department of Parks and Recreation about acquisition.
5. Contact landowners about land use Allocation No. 2.

## Rationale for the Preferred Alternative

The ENHANCEMENT OF NATURAL VALUES ALTERNATIVE is the PREFERRED ALTERNATIVE.

The King Range Vicinity is a logical geographic area to improve management efficiencies through consolidation of Federal ownership. The preferred alternative also provides for management of land which is compatible with the major themes within the King Range National Conservation Area.



## MANAGEMENT AREA: RED MOUNTAIN

Three alternatives were generated for this management area. Because of existing designations and land use allocations covering large acreages (RNA/ACECs, National Wild and Scenic River Systems) many potential resource conflicts have been resolved and are not reanalyzed in this plan.

1. Enhancement of Natural Values. Emphasizes protection of old-growth characteristics, unique botanical values, and peregrine falcon habitat. A high level of timber production can also be achieved under this alternative (thus negating the necessity of a separate Timber Production Alternative). Proposes acquisition for timber, peregrine falcon habitat, and other natural values. Recognizes the significance of existing old-growth reserves in the area. This is the preferred alternative.
2. No Action. Emphasizes protection of old-growth characteristics, unique botanical values, and peregrine falcon habitat. A high level of timber production can also be achieved under this alternative. Proposes acquisition for timber, peregrine falcon habitat, and other natural values.
3. Administrative Adjustments. This alternative acknowledges the interest by the California State Lands Commission to acquire large tracts in the management area. Assumes that excellence in protection and enhancement of certain resources can be achieved through disposal to selected entities; also recognizes significant Federal interests and prohibits disposal of RNA/ACEC, Wild and Scenic River tracts, and critical peregrine falcon habitat.

MANAGEMENT AREA: RED MOUNTAIN

ALTERNATIVE: ENHANCEMENT OF NATURAL VALUES/PREFERRED (Emphasize Nonconsumptive Uses and Enhancement of the Environment)

RETAIN: 31,300 acres surface ACQUIRE: 7,000 acres DISPOSE: 3,000 acres  
14,000 acres subsurface

---

I. RESOURCE CONDITION OBJECTIVES

1. Enhance old-growth forest characteristics and related wildlife species. Provide islands of old-growth mixed-evergreen forest.
2. Enhance and facilitate protection of unique botanical values--particularly Arabis mcdonaldiana.
3. Protect nests and foraging habitat of peregrine falcons.
4. Enhance riparian habitat and anadromous fish streams.
5. Facilitate and encourage scientific research of the unique soils on Red Mountain.
6. Enhance the natural values within the Northern California Coast Range Preserve.
7. Provide forest products from forest land which does not interfere with identified natural values.
8. Improve cost-effectiveness of public land management by consolidation of ownership.
9. Use public lands to help satisfy the State of California in-lieu entitlements.

II. LAND USE ALLOCATIONS (See Map 2-9)

1. Retain 31,300 acres of public lands within the management area. The following 3,000 acres will be assessed for disposal on a case-by-case basis:
  - T. 4 S., R. 5 E., HM, Sections 14, 15, 22, 27, 33, 34.
  - T. 5 S., R. 5 E., HM, Sections 2, 3, 4, 6, 7, 8, 14, 15, 17, 18, 20, 22, and 23.
  - T. 5 S., R. 4 E., HM, Sections 25, 26, 27, 32, and 33.
  - T. 24 N., R. 15 W., MDM, Sections 11 and 12.
  - T. 23 N., R. 15 W., MDM, Sections 17, 18, 20.
2. Actively pursue acquisition of:
  - a. Approximately 3,500 acres of high-site, well-stocked commercial forest land within the management areas for timber production.



MANAGEMENT AREA: RED MOUNTAIN

ALTERNATIVE: ENHANCEMENT OF NATURAL VALUES/PREFERRED (Emphasize Nonconsumptive Uses and Enhancement of the Environment)

---

II. LAND USE ALLOCATIONS (CONT.)

- b. Up to 2,600 acres of land in the Charlton Creek and Bell Springs Creek watersheds to protect peregrine falcon nesting sites and foraging areas.
- c. 900 acres of land along the South Fork Eel River between Elkhorn Ridge and Brushy Mountain to protect riparian values.
- 3. Remove suitable commercial forest land in the following areas from the timber production base:
  - a. Northern California Coast Range Preserve.
  - b. Cedar Creek portion of the Red Mountain ACEC:
    - T. 23 N., R. 17 W., HM, Section 1.
  - c. Wild and Scenic River corridor (quarter mile on each side of the river).
  - d. Stream buffers as specified in SYU 13 environmental impact statement.
- 4. Harvest an average of 1.5 MMBF per year from the remaining timber production base of about 16,000 acres.
- 5. Sensitive species will be considered and protected according to the BLM California Sensitive Species Policies (Appendices 2-3 and 2-4).
- 6. Off-Road Vehicle Designations (pursuant to 43 CFR 8340):

Public lands within the Wild and Scenic River corridor and the NCCRP and Red Mountain ACECs are designated CLOSED.

All other public land: Vehicles are LIMITED to roads; roads are defined as transportation facilities designed for highway vehicles having four or more wheels.

MANAGEMENT AREA: RED MOUNTAIN

ALTERNATIVE: ENHANCEMENT OF NATURAL VALUES/PREFERRED (Emphasize Nonconsumptive Uses and Enhancement of the Environment)

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## II. LAND USE ALLOCATIONS (CONT.)

7. Add about 80 acres in Stolen Opening to the Northern California Coast Range Preserve ACEC:  
  
T. 21 N., R. 15 W., MDM, Section 6, that portion in the Elder Creek watershed.
8. Public lands are available for dispersed, unstructured recreation. (There are some restrictions on recreational uses within the NCCRP which still apply--no shooting, hunting or fishing, camping, equestrian use).
9. The Red Mountain RNA/ACEC is not available for mineral material sales. The NCCRP is to be withdrawn from entry under the 1872 Mining Law and is not available for mineral leasing, or material sales.
10. The RNA/ACECs are not available for livestock grazing.

## III. MANAGEMENT ACTIONS

1. Implement Arabis Recovery Plan.
2. Fully implement ACEC Plans for Red Mountain and the Northern California Coast Range Preserve.
3. Federal Register notices:
  - a. ORV designations.
4. Sign entrance to public lands regarding ORV designations.
5. Acquire easements to blocks without adequate access.
6. Contact universities and other research institutions for expressions of interest in conducting research.
7. Contact surrounding landowners about acquisitions (see Land Use Allocation No. 2).
8. Prepare Land Report(s) to address:
  - a. Site-specific problems.
  - b. Specific acquisition methods (regarding No. 7 above).



MANAGEMENT AREA: RED MOUNTAIN

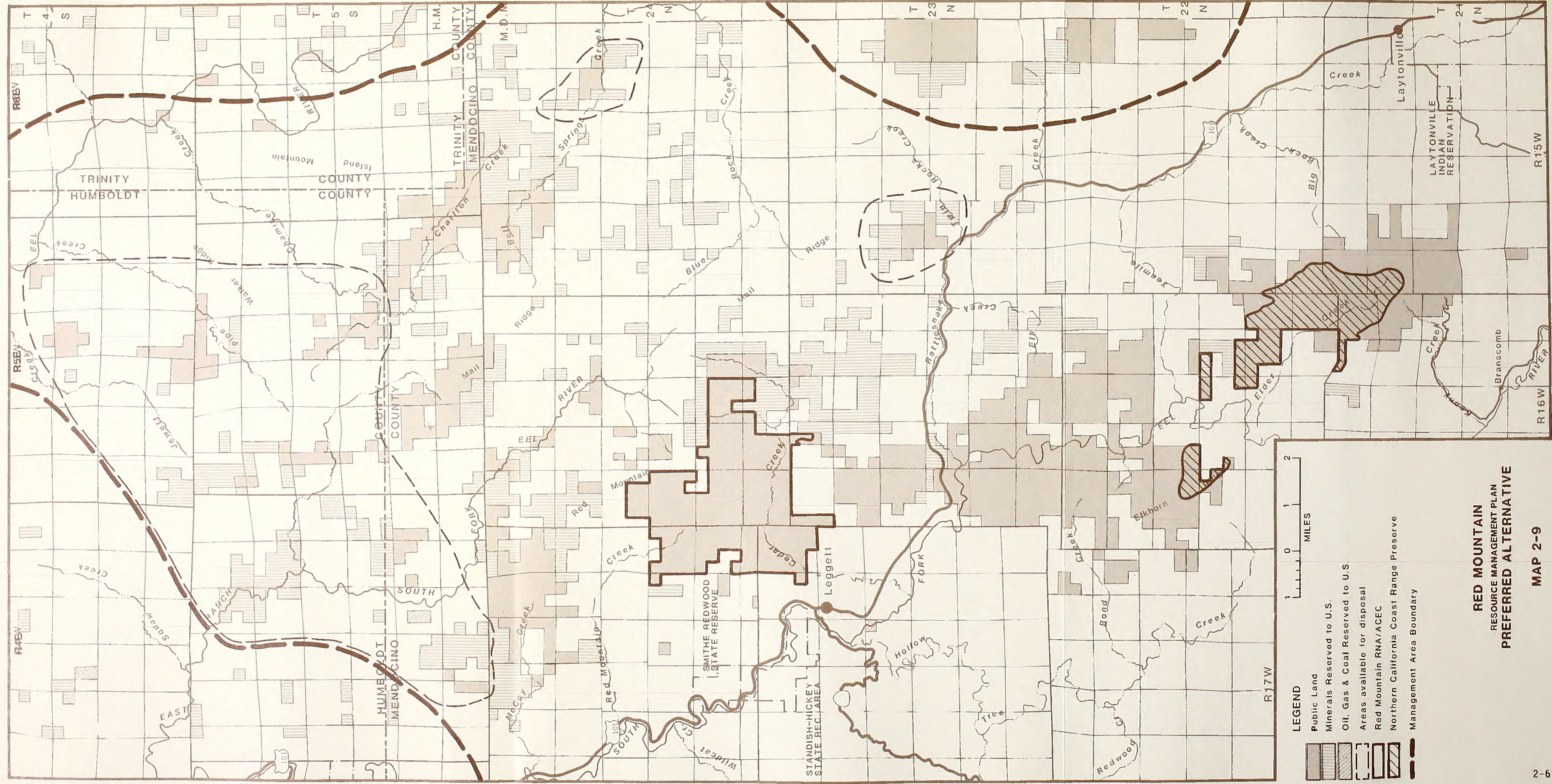
ALTERNATIVE: ENHANCEMENT OF NATURAL VALUES/PREFERRED (Emphasize Nonconsumptive Uses and Enhancement of the Environment)

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III. MANAGEMENT ACTIONS (CONT.)

9. Monitor: peregrine falcons, spotted owls, and other unique resources.
10. a. Submit "Withdrawal Petition" to the Director, BLM, for transmittal to the Secretary of the Interior for approval regarding Land Use Allocation No. 9.
- b. Upon approval of 10a, publish Federal Register notice stating a withdrawal proposal has been made.
11. Post boundaries.





**LEGEND**

- Public Land
- Minerals Reserved to U.S.
- Oil, Gas & Coal Reserved to U.S.
- Areas available for disposal
- Red Mountain RNA/ACEC
- Northern California Coast Range Preserve
- Management Area Boundary

1 0 1 2  
MILES

**RED MOUNTAIN**  
RESOURCE MANAGEMENT PLAN  
**PREFERRED ALTERNATIVE**  
**MAP 2-9**





MANAGEMENT AREA: RED MOUNTAIN

ALTERNATIVE: NO ACTION (Continuation of Present Management)

RETAIN: 32,300 acres surface    ACQUIRE: 7,000 acres    DISPOSE: 2,000 acres  
14,000 acres subsurface

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I. RESOURCE CONDITION OBJECTIVES

1. Enhance old-growth forest characteristics and related wildlife species. Provide islands of old-growth mixed-evergreen forest.
2. Enhance and facilitate protection of unique botanical values--particularly Arabis mcdonaldiana.
3. Protect nests and foraging habitat of peregrine falcons.
4. Enhance riparian habitat and anadromous fish streams.
5. Facilitate and encourage scientific research of the unique soils on Red Mountain.
6. Enhance the suite of natural values within the Northern California Coast Range Preserve.
7. Provide forest products from forest land which does not interfere with identified natural values.
8. Improve cost-effectiveness of public land management by consolidation of ownership.
9. Use public lands to help satisfy the State of California in-lieu entitlements.

II. LAND USE ALLOCATIONS

1. Retain 32,300 acres of public lands. Dispose of the following 2,000 acres of public land on a case-by-case basis:
  - T. 5 S., R. 5 E., HM, Sections 6, 7, 8, 14, 15, 17, 18, 20, 22, and 23.
  - T. 5 S., R. 4 E., HM, Sections 25, 26, 27, 32 and 33.
  - T. 24 N., R. 15 W., MDM, Sections 11 and 12.
  - T. 23 N., R. 15 W., MDM, Sections 17, 18, 20.
2. Actively pursue acquisition of:
  - a. 3,500 acres of high-site, well-stocked commercial forest land within the management area for timber production.



MANAGEMENT AREA: RED MOUNTAIN

ALTERNATIVE: NO ACTION (Continuation of Present Management)

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II. LAND USE ALLOCATIONS (CONT.)

- b. 2,600 acres of land in the Charlton Creek and Bell Springs Creek watersheds to protect peregrine falcon nesting sites.
  - c. 900 acres of land along the South Fork Eel River between Elkhorn Ridge and Brushy Mountain to protect riparian values.
3. Remove suitable commercial forest land in the following areas from the timber production base:
  - a. Northern California Coast Range Preserve.
  - b. Cedar Creek portion of the Red Mountain ACEC:
    - T. 23 N., R. 17 W., HM, Section 1.
  - c. Wild and Scenic River corridor (quarter mile on each side of the river).
  - d. Stream buffers as specified in the SYU 13 Environmental Impact Statement.
4. Harvest an average of 1.5 MMBF per year from the remaining timber production base of about 16,000 acres.

Tree planting, brush and hardwood release, and pre-commercial thinning will be done as part of the forest improvement program associated with this timber harvest as outlined in SYU 13.
5. Sensitive species will be considered and protected according to the BLM California Sensitive Species Policies (Appendices 2-3 and 2-4).
6. Off-Road Vehicle Designations (pursuant to 43 CFR 8340):

Public lands within the Wild and Scenic River corridor and the NCCRP and Red Mountain ACECs are designated CLOSED.

All other public land: Vehicles are LIMITED to roads; roads are defined as transportation facilities designed for highway vehicles having four or more wheels.
7. Add about 80 acres in Stoten Opening to the Northern California Coast Range Preserve ACEC:
  - T. 21 N., R. 15 W., MDM, Section 6, that portion in the Elder Creek watershed.

MANAGEMENT AREA: RED MOUNTAIN

ALTERNATIVE: NO ACTION (Continuation of Present Management)

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II. LAND USE ALLOCATIONS (CONT.)

8. Public lands are available for dispersed, unstructured recreation. (There are some restrictions on recreational uses within the NCCRP which still apply--no shooting, hunting or fishing, camping, equestrian use).
9. The Red Mountain RNA/ACEC is not available for mineral material sales. The NCCRP is to be withdrawn from entry under the 1872 Mining Law and is not available for mineral leasing, or material sales.
10. The RNA/ACECs are not available for livestock grazing.

III. MANAGEMENT ACTIONS

1. Implement Arabis Recovery Plan.
2. Fully implement ACEC Plans for Red Mountain and the Northern California Coast Range Preserve.
3. Federal Register notices:
  - a. ORV designations.
4. Sign entrance to public lands regarding ORV designations.
5. Acquire easements to blocks without adequate access.
6. Contact universities and other research institutions for expressions of interest in conducting research.
7. Contact surrounding landowners about acquisitions (see Land Use Allocation No. 2).
8. Prepare Land Report(s) to address:
  - a. Site-specific problems.
  - b. Specific acquisition methods (regarding No. 7 above).
9. Monitor: peregrine falcons, spotted owls, and other unique resources.



MANAGEMENT AREA: RED MOUNTAIN

ALTERNATIVE: NO ACTION (Continuation of Present Management)

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III. MANAGEMENT ACTIONS (CONT.)

10. a. Submit "Withdrawal Petition" to the Director, BLM, for transmittal to the Secretary of the Interior for approval regarding Land Use Allocation No. 9.
- b. Upon approval of 10a, publish Federal Register notice stating a withdrawal proposal has been made.
11. Post boundaries.

MANAGEMENT AREA: RED MOUNTAIN

ALTERNATIVE: ADMINISTRATIVE ADJUSTMENTS

RETAIN: 12,700 acres    ACQUIRE: 0 acres    DISPOSE: 22,100 acres surface  
14,000 acres subsurface

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I. RESOURCE CONDITION OBJECTIVES

1. Enhance manageability of public lands and improve cost-effectiveness of resource management by consolidation of Federal interests in areas of high visibility and significant Federal ownership.
2. Provide a land base in Humboldt County to satisfy acquisitions within the King Range National Conservation Area.
3. Satisfy the State of California in-lieu entitlements.

II. LAND USE ALLOCATIONS

1. Dispose of all Federal interests including minerals, except 12,700 acres including:
  - a. ACECs (Red Mountain and NCCRP).
  - b. Wild and Scenic River corridors (one quarter mile on each side of the river).
  - c. Endangered species habitat in Charlton Creek and Bell Spring Creek watersheds:

T. 5 S., R. 6 E. HM, Section 31

T. 24 N., R. 15 W. MDM, Sections 4, and 5.

2. The priority for disposal of all land within Humboldt County is for King Range acquisitions. There are no specific priorities for lands in Mendocino County.
3. Keep suitable commercial forest land on areas to be disposed in the timber production base pending disposal. Commercial forest land in the areas to be retained (1a, 1b, 1c) shall be removed from the timber production base.
4. Public lands are not available for new livestock grazing leases.
5. Off-Road Vehicle Designations (pursuant to 43 CFR 8340):

Public lands within the Wild and Scenic River corridor and NCCRP and Red Mountain ACECs of the management area are designated CLOSED.



MANAGEMENT AREA: RED MOUNTAIN

ALTERNATIVE: ADMINISTRATIVE ADJUSTMENTS

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II. LAND USE ALLOCATIONS (CONT.)

All other public lands: Vehicles are LIMITED to roads; roads are defined as transportation facilities designed for highway vehicles having four or more wheels.

6. No new Special Designations.
7. Area is available for dispersed, unstructured recreation. (The existing ACEC plan for the NCCRP puts some restrictions on types of recreational pursuits--these still apply--no shooting, hunting or fishing, camping, equestrian use and ORVs.)
8. The Red Mountain RNA/ACEC is not available for mineral material sales; the NCCRP is to be withdrawn from entry under the Mining Law of 1872 and is not available for mineral leasing or mineral material sales.

III. MANAGEMENT ACTIONS

1. Contact potential selectors for disposal of public lands and resources (not exclusively):
  - a. State Lands Commission.
  - b. Surrounding landowners.
  - c. Landowners within KRNCA.
  - d. Others.
2. Prepare Land Report(s) to address:
  - a. Specific disposal methods and time frames (regarding No. 1 above).
  - b. Site-specific inventories and requirements:
    - i. Cultural resources.
    - ii. Mineral reports.
    - iii. T&E species.

MANAGEMENT AREA: RED MOUNTAIN

ALTERNATIVE: ADMINISTRATIVE ADJUSTMENTS

---

III. MANAGEMENT ACTIONS (CONT.)

3. Federal Register notices:

a. ORV designations.

4. a. Submit "Withdrawal Petition" to the Director, BLM, for transmittal to the Secretary of the Interior for approval regarding Land Use Allocation No. 9.

b. Upon approval of 4a, publish Federal Register notice stating a withdrawal proposal has been made.



## Rationale for the Preferred Alternative

The ENHANCEMENT OF NATURAL VALUES is the PREFERRED ALTERNATIVE.

This alternative protects wildlife (owls and fisheries), endangered animal species (peregrine falcons), and allows good timber management practices.

Much of the area in which timber management would conflict with other significant resources has been removed from the timber production base (Wild and Scenic Rivers corridors, Northern California Coast Range Preserve, Cedar Creek ACEC, and streamside buffers).

Benefits resulting from this alternative include:

- providing large, consolidated areas of old-growth mixed evergreen forest (Northern California Coast Range Preserve and Cedar Creek);
- providing 91 MMBF of commercial timber with a yield of 1.5 MMBF per year;
- protecting unique botanical values (Arabis mcdonaldiana);
- protecting peregrine falcon habitat;
- enhancing riparian and anadromous fisheries habitat (Eel River and Cedar Creek);
- encouraging the study of unique red soils in the Red Mountain ACEC; and
- making scattered parcels of land available for exchange and State indemnity selection.

## MANAGEMENT AREA: COVELO VICINITY

Two alternatives were generated for this management area. They provide decisionmakers with a realistic and distinct range of options considering the issues of timber management, old-growth habitat, and State in-lieu selections.

1. Administrative Adjustments. Recognizes prior State in-lieu selections in this management area; assumes that resource protection and enhancement can be achieved through disposal to non-Federal entities. Recognizes that large tracts of public land (BLM-administered) are contiguous to the Mendocino and Six Rivers National Forests and that this area is within an administrative sphere of influence of the U.S. Forest Service. This is the preferred alternative.
2. No Action. Assumes the BLM will continue to manage remaining resources, with emphasis on the natural values of Eden Creek and the Eel River corridor.

An alternative with emphasis on timber management was considered. Because the best timber lands within this area have recently been selected by the State Lands Commission and the significant natural values are not affected by remaining timber production, this alternative is not distinct from Alternative 2 above and is no longer considered as a separate option.



MANAGEMENT AREA: COVELO VICINITY

ALTERNATIVE: ADMINISTRATIVE ADJUSTMENTS/PREFERRED

RETAIN: 0 acres      ACQUIRE: 0 acres      DISPOSE: 66,500 acres surface  
30,000 acres subsurface

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I. RESOURCE CONDITION OBJECTIVES

1. Enhance manageability of public lands and improve cost-effectiveness of resource management by consolidation of Federal interests in areas of high visibility with significant Federal ownership.
2. Help meet the State of California's in-lieu entitlements.

II. LAND USE ALLOCATIONS (See Map 2-10, Map Pocket)

1. All interests administered by the Bureau, including minerals, are to be disposed.
2. Suitable commercial forest land will be kept in the timber production base pending disposal, unless it is determined not to be economical to remove the timber. About 1.1 MMBF can be economically removed annually.

Tree planting, brush and hardwood release, and pre-commercial thinning will be done as part of the forest improvement program associated with this timber harvest as outlined in SYU 13.

3. Public lands are not available for new livestock grazing leases.
4. Off-Road Vehicle Designations (pursuant to 43 CFR 8340):

Vehicles are LIMITED to roads; roads are defined as transportation facilities designed for highway vehicles having four or more wheels.

5. Public lands are available for dispersed, unstructured recreation.

III. MANAGEMENT ACTIONS

1. Contact potential selectors for disposal of public lands and resources (not exclusively):
  - a. U.S. Forest Service.
  - b. State Lands Commission.
  - c. Surrounding landowners.
  - d. Timber industries and others.

MANAGEMENT AREA: COVELO VICINITY

ALTERNATIVE: ADMINISTRATIVE ADJUSTMENTS/PREFERRED

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### III. MANAGEMENT ACTIONS

2. Pursue legislation modifying boundaries of Mendocino National Forest and Six Rivers National Forest. Manage contiguous lands under cooperative agreements until legislation is consummated.
3. Prepare Land Report(s) to address:
  - a. Specific disposal methods and time frames (regarding No. 1 above).
  - b. Site-specific inventories and requirements:
    - i. Cultural resources.
    - ii. Mineral reports.
    - iii. T&E species.
4. Federal Register notices:
  - a. ORV designations.
5. Prepare a computer run to refine the annual allowable cut.



MANAGEMENT AREA: COVELO VICINITY

ALTERNATIVE: NO ACTION (Continuation of Present Management)

RETAIN: 66,500 acres surface    ACQUIRE: 640 acres    DISPOSE: 0 acres  
30,000 acres subsurface

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I. RESOURCE CONDITION OBJECTIVES

1. Enhance and facilitate protection of unique botanical values.
2. Enhance manageability of public lands and improve cost-effectiveness of resource management by consolidation of ownership.
3. Encourage and facilitate the use of Little Darby as an environmental education area.
4. Provide forest products from forest land which does not interfere with identified natural values.

II. LAND USE ALLOCATIONS (See Map 2-11, Map Pocket)

1. Public lands are not available for disposal.
2. Actively pursue acquisition of 640 acres of private inholdings within the boundaries of the Eden Creek RNA/ACEC to enhance manageability.
3. Manage for various forest products. Harvest an average of about 1.1 MMBF per year from the available forest land base of 8,500 acres after streamside buffers, Little Darby, Willis Ridge, and RNA/ACECs are removed from the timber production base.

Tree planting, brush and hardwood release, and pre-commercial thinning will be done as part of the forest improvement program associated with this timber harvest as outlined in SYU 13.

4. Sensitive plant and animal species will be considered and protected according to the BLM California Sensitive Species Policies (Appendices 2-3 and 2-4).
5. Off-Road Vehicle Designations:

Public lands within the Eden Creek RNA/ACEC, Wild and Scenic River corridors, and Little Darby portion of the management area are designated CLOSED.

Remaining areas: Vehicles are LIMITED to roads; roads are defined as transportation facilities designed for highway vehicles having four or more wheels.

MANAGEMENT AREA: COVELO VICINITY

ALTERNATIVE: NO ACTION (Continuation of Present Management)

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II. LAND USE ALLOCATIONS (CONT.)

6. Designate Eden Creek (4,700 acres) as Research Natural Area (RNA)/Area of Critical Environmental Concern (ACEC) for the preservation of unique botanical values.

T. 21 N., R. 12 W., MDM, Sections 13, 14, 15, 22, 23, 24, 25, 26, 27, 34 and 35.

T. 21 N., R. 11 W., MDM, Section 19.

8. Public lands are available for dispersed, unstructured recreation.
9. The Eden Valley RNA/ACEC is not available for mineral material sales.
10. The Eden Creek RNA/ACEC is not available for livestock grazing.
11. Eden Creek RNA/ACEC is not open to sale of any forest products.

III. MANAGEMENT ACTIONS

1. Federal Register notices:

- a. ORV designations.
2. Sign entrance to blocks regarding ORV designations.
3. Contact universities and other research institutions for expressions of interest in conducting research.
4. Contact surrounding landowners about acquisitions.
5. Prepare Land Report(s) to address:
  - a. Specific acquisition methods.
6. Prepare an ACEC Activity Plan for Eden Creek.
7. Prepare a new computer run for the annual allowable cut.
8. Pursue cooperative management agreement/interagency agreement with U. S. Forest Service for efficient management of this management area.
9. Post boundaries.



## Rationale for the Preferred Alternative

The ADMINISTRATIVE ADJUSTMENTS ALTERNATIVE is the PREFERRED ALTERNATIVE.

Lands in the Covelo Vicinity are distant from existing BLM offices. Some public lands are within an administrative sphere of influence of the Mendocino National Forest and there is a growing State Lands Commission presence within the area. Some of the BLM lands are administered by the Mendocino National Forest via Memorandum of Agreement. These lands can be best utilized by exchanging them for lands and resources which can be more easily and economically managed by the Bureau elsewhere (Lacks Creek, Red Mountain or adjacent to the King Range). Big Butte Wilderness is not available for exchange and can be best managed by the Forest Service (it is presently managed by the Covelo Ranger District through a cooperative management agreement). Therefore, the objective of this alternative is to use these lands to enhance the manageability of public lands and to improve cost-effectiveness of resource management by consolidating the lands we manage in areas more easily accessible. With the exception of wilderness and Wilderness Study Areas we recognize that these lands could also be selected by the State to help satisfy their in-lieu entitlement.

This management unit contains some 66,500 acres of public land. Approximately 8,500 acres of this land is available for intensive forest management. Most of these CFLs have the necessary management infrastructure in place. If these lands are exchanged those improvements would be lost.

Little Darby is an area that is extensively used by local school groups for environmental education. This area should be more appropriately managed by one of the local governmental entities via disposal under the Recreation and Public Purposes Act.

Once the decision to retain or dispose of these lands was made a second decision was needed on whether the commercial forest land in this unit should be retained or removed from our allowable cut base. The decision was made to leave those lands requiring minimal investment in the timber production base. We have no way of knowing when or if these lands will be exchanged and we do not want productive lands to sit idle. Therefore, we plan to go ahead with sales identified in our 10-Year Forest Management Plan (Travis Ranch, Timbered Ridge, Mina, and Brush Mountain). We will also provide the minimal forest development work necessary for those areas if they are harvested. If the opportunity arises to exchange any of these sale areas we will stop all work on that sale.

There are several tracts in this unit that would require a significant investment to access or harvest the timber, e.g. Willis Ridge. Because the opportunity for a fair return on those investments is limited these areas will not be harvested and will be removed from the timber production base. We feel such changes are necessary if our allowable cut figures are to be realistic.

## MANAGEMENT AREA: SCATTERED TRACTS

Three alternatives were considered for this management area. They provide decisionmakers a range of realistic and distinct options vis-à-vis the significant issues: State of California indemnity selections, old-growth forest characteristics, and the viability of timber production.

1. Administrative Adjustments. Recognizes opportunity for disposal and consolidation to improve Federal management efficiencies and to settle the State indemnity selections. This assumes these lands can be most effectively used as an exchange base to acquire lands which can be more effectively and efficiently managed.
2. Enhancement of Natural Values. Emphasizes enhancement of old-growth characteristics, peregrine falcon habitat, and other natural values. Assumes protection of these values is more critical than the production of timber within this management area.
3. No Action. The continuation of present management effects a level of both timber production and land disposals and protection of old-growth characteristics.

An alternative with emphasis on enhancing timber management was considered. Because of the small, scattered nature of the timber stands, lack of legal and physical access, and difficulties dealing with the residential nature of private land surrounding many of these parcels, this alternative is considered economically indefensible and unreasonable from a manageability standpoint. Therefore, this alternative is dropped from further consideration.



MANAGEMENT AREA: SCATTERED TRACTS

ALTERNATIVE: ADMINISTRATIVE ADJUSTMENTS/PREFERRED

RETAIN: 5,000 acres    ACQUIRE: 0 acres    DISPOSE: 7,700 acres surface  
82,800 acres subsurface

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I. RESOURCE CONDITION OBJECTIVES

1. Enhance manageability of public lands and improve cost-effectiveness of resource management by consolidation of Federal interests in areas of high visibility with significant Federal ownership.
2. Help satisfy the State of California's in-lieu entitlements.

II. LAND USE ALLOCATIONS (See Map 2-12, Map Pocket)

1. All Federal interests, including minerals, are to be disposed, except the Eagle Peak/Greenough Ridge areas, and The Cedars (pending completion of the Streptanthus study).
  - a. Eagle Peak/Greenough Ridge (2,000 acres) for peregrine falcon habitat:
    - T. 16 N., R. 13 W., MDM, Sections 5 and 6.
    - T. 16 N., R. 14 W., MDM, Sections 4, 9-11, 14, 15.
    - T. 17 N., R. 13 W., MDM, Sections 31 and 32.
    - T. 17 N., R. 14 W., MDM, Sections 14 and 23-24.
  - b. The Cedars (3,000 acres) for sensitive plant species:
    - T. 9 N., R. 11 W., MDM, Sections 7, 17-19 and 30.
    - T. 9 N., R. 12 W., MDM, Section 24.
2. Prevent discretionary encumbrances to disposal:
  - a. Remove suitable commercial forest land from the timber production base to make the land more attractive to potential selectors. Manage as an unregulated forest.
  - b. Public lands are not available for livestock grazing.
4. Off-Road Vehicle Designations (pursuant to 43 CFR 8340):

Public lands within the management area's Wild and Scenic River corridors are designated CLOSED.

All other public lands: Vehicles are LIMITED to roads; roads are defined as transportation facilities designed for highway vehicles having four or more wheels.

MANAGEMENT AREA: SCATTERED TRACTS

ALTERNATIVE: ADMINISTRATIVE ADJUSTMENTS/PREFERRED

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LAND USE ALLOCATIONS (CONT.)

5. No Special Designations.
6. Public lands are available for dispersed, unstructured recreation.

III. MANAGEMENT ACTIONS

1. Contact potential selectors for disposal of public lands and resources (not exclusively):
  - a. State Lands Commission.
  - b. Surrounding private landowners.
  - c. Surrounding timber industry owners
  - d. Conservation Organizations.
2. Prepare Land Report(s) to address:
  - a. Specific disposal methods and time frames (regarding No. 1 above).
  - b. Site-specific inventories and requirements:
    - i. Cultural Resources.
    - ii. T&E Species.
3. Federal Register notices:
  - a. ORV designations.



MANAGEMENT AREA: SCATTERED TRACTS

ALTERNATIVE: ENHANCEMENT OF NATURAL VALUES (Emphasize Nonconsumptive Uses and Enhancement of the Environment)

RETAIN: 6,000 acres    ACQUIRE: 1,000 acres    DISPOSE: 6,700 acres surface  
82,800 acres subsurface

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I. RESOURCE CONDITION OBJECTIVES

1. Enhance and protect old-growth forest characteristics and related wildlife species. Provide old-growth islands of mixed-evergreen forest.
2. Protect the habitat of the peregrine falcon.
3. Ensure protection of the habitat of Streptanthus at The Cedars.

II. LAND USE ALLOCATIONS

1. Dispose of all Federal interests (including minerals) except:
  - a. Iaqua Buttes (1,000 acres) for old-growth forest characteristics.  
T. 3 N., R. 2 E., HM, Sections 1 and 2.  
T. 3 N., R. 3 E., HM, Section 6.  
T. 4 N., R. 2 E., HM, Section 25.  
T. 4 N., R. 3 E., HM, Section 31.
  - b. Eagle Peak/Greenough Ridge (2,000 acres) for peregrine falcon habitat:  
T. 16 N., R. 13 W., MDM, Sections 5 and 6.  
T. 16 N., R. 14 W., MDM, Sections 4, 9-11, 14, 15.  
T. 17 N., R. 13 W., MDM, Sections 31 and 32.  
T. 17 N., R. 14 W., MDM, Sections 14 and 23-24.
  - c. The Cedars (3,000 acres) for sensitive plant species:  
T. 9 N., R. 11 W., MDM, Sections 7, 17-19 and 30.  
T. 9 N., R. 12 W., MDM, Section 24.
2. Actively pursue acquisition of 1,000 acres of private land in the area with the legal description given for retention above (No. 1).

MANAGEMENT AREA: SCATTERED TRACTS

ALTERNATIVE: ENHANCEMENT OF NATURAL VALUES (Emphasize Nonconsumptive Uses and Enhancement of the Environment)

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LAND USE ALLOCATIONS (CONT.)

3. To protect the RNA/ACECs and to prevent discretionary encumbrances to disposal:
  - a. All suitable commercial forest land is to be withdrawn from the timber production base.
  - b. Public lands are not available for livestock grazing.
4. Off-Road Vehicle Designations:

Public lands within the areas mentioned in Land Use Allocations No. 1 are designated CLOSED.

Remaining public lands: Vehicles are LIMITED to roads; roads are defined as transportation facilities designed for highway vehicles having four or more wheels.
5. Designate areas described in Land Use Allocation No. 1 above as Research Natural Area (RNA)/Area of Critical Environmental Concern (ACEC) for the preservation of old-growth values.

Forest stands in RNA/ACECs are available for nonconsumptive research and cone collecting. Fire, disease, and insects will be controlled to prevent spreading to other lands and to protect the existing forest condition.
6. Public lands are available for dispersed, unstructured recreation.

III. MANAGEMENT ACTIONS

1. Federal Register notices:
  - a. ORV designations.
2. Contact potential selectors regarding acquisitions and land disposal:
  - a. State Lands Commission.
  - b. Counties and other local entities.
  - c. Individuals/surrounding landowners.



MANAGEMENT AREA: SCATTERED TRACTS

ALTERNATIVE: ENHANCEMENT OF NATURAL VALUES (Emphasize Nonconsumptive Uses and Enhancement of the Environment)

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III. MANAGEMENT ACTIONS (CONT.)

3. Prepare Land Report(s) to address:
  - a. Specific acquisition time frames and methods (regarding No. 2 above).
4. Sign entrance to blocks regarding ORV designations.
5. Contact universities and other research institutions for expressions of interest in conducting research.
6. Prepare ACEC Activity Plans to address site-specific needs, access, research proposals and priorities, etc.
7. Monitor cultural resources, peregrine falcons, and old-growth characteristics.

MANAGEMENT AREA: SCATTERED TRACTS

ALTERNATIVE: NO ACTION (Continuation of Present Management)

RETAIN: 10,000 acres    ACQUIRE: 800 acres    DISPOSE: 2,700 acres surface  
82,800 acres subsurface

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I. RESOURCE CONDITION OBJECTIVES

1. Improve cost-effectiveness of public land management by consolidation of Federal ownership.
2. Enhance natural values and provide opportunities for environmental education.

II. LAND USE ALLOCATIONS

1. Gilham Butte, Iaqua Buttes, and all areas in the Clear Lake Resource Area are to be retained; all other parcels are to be disposed (The Cedars will be disposed, depending on the outcome of the Streptanthus study).
2. Acquire about 800 acres around Gilham Butte for recreational uses.
3. Until such time as parcels are disposed, harvest an average of 0.3 MMBF per year from the timber production base of about 1,100 acres. Only streamside buffers and the RNA/ACECs are to be removed from the timber production base.
4. Off-Road Vehicle Designations (pursuant to 43 CFR 8340):

Vehicles are LIMITED to roads; roads are defined as transportation facilities designed for highway vehicles having four or more wheels.

5. Designate Gilham Butte and Iaqua Butte (about 3,100 acres) as Research Natural Areas (RNA)/Areas of Critical Environmental Concern (ACECs) for the preservation of old-growth values.

The Gilham Butte and Iaqua Butte RNA/ACECs are available for nonconsumptive research and cone collecting. Fire, disease, and insects will be controlled to prevent spreading to other lands and to protect the existing forest conditions.

6. Public lands are available for dispersed, unstructured recreation. Acquire easements and construct a trail between Humboldt Redwoods State Park, Gilham Butte, and the King Range National Conservation Area.



MANAGEMENT AREA: SCATTERED TRACTS

ALTERNATIVE: NO ACTION (Continuation of Present Management)

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### III. MANAGEMENT ACTIONS

1. Federal Register notices:
  - a. ORV designations.
2. Contact potential selectors for disposal of public lands and resources.
3. Contact surrounding landowners for acquisition regarding Land Use Allocation No. 2.
4. Prepare Land Report(s) to address specific disposal acquisition methods (regarding Nos. 2 and 3 above).
5. Acquire public access into Gilham Butte, Pine Ridge, and Eagle Peak for recreational and educational uses.

## Rationale for the Preferred Alternative

The ADMINISTRATIVE ADJUSTMENTS ALTERNATIVE is the PREFERRED ALTERNATIVE.

The emphasis of this alternative is to enhance the manageability of public lands and improve the cost-effectiveness of resource management by consolidation of Federal lands in areas of high visibility with significant Federal ownership.

This area contains many small scattered parcels of land ranging in size from 10 acres to 3,000 acres in Clear Lake's Pine Ridge area. Total acreage, scattered throughout Humboldt, Mendocino, and Sonoma counties (a north to south drive of 250 miles) is just under 13,000 acres. Of this, there are some 3,700 acres of available commercial forest land with an estimated standing volume of 85 MMBF. This would equate to an approximate allowable cut of 1.4 MMBF per year.

Not all lands would be made available for disposal, however, lands to be retained include:

- Eagle Peak Area in Clear Lake Resource Area for wildlife (peregrine).
- The Cedars in Clear Lake Resource Area for completion of Streptanthus Taxonomic Study (U.S. Fish and Wildlife Service will make final determination on listing).

This recommendation would result in the loss of a total of 6,200 acres of commercial forest land. However, almost all of the parcels lack legal access and many do not have physical access. In addition, many of these parcels have timber volumes which are not sufficient to justify timber sales by the Federal government.

Three sites within this unit have previously been identified as old-growth reserve study areas. Gilham Butte and Big Bend are unsuitable for further protection. Iaqua Buttes was found to be suitable, however, because of its proximity to other old-growth areas, configuration, size, and access, management would be extremely difficult.

Like public lands in the Covelo Vicinity, most of these lands are difficult to manage because of access, stand condition, and surrounding land uses. These lands can best serve the needs of the public by using them in exchanges that help block up more easily managed and productive lands.

Unlike the Covelo Vicinity, the commercial forest land in the Scattered Tracts will be removed from the timber production base. Because of inaccessibility and small timber volumes it is unreasonable to spend large sums of money to acquire access and build roads. Therefore, these lands will be managed as unregulated forest.





TABLE 2-1  
COMPARISON OF ALTERNATIVES: SUMMARY OF ENVIRONMENTAL IMPACTS  
FOR THE SAMOA PENINSULA MANAGEMENT AREA

ISSUE	NO ACTION (PREFERRED) ALTERNATIVE)	ENHANCEMENT OF NATURAL VALUES	ENHANCEMENT OF RECREATIONAL VALUES	ADMINISTRATIVE ADJUSTMENTS
Impacts on ORV Recreational Use Levels	ORV recreational use on the Samoa Ounes will be greatly enhanced with the development of the ORV park (increasing use from 8,000 visitor days per year to nearly 17,000 visitor days). ORV use restrictions on the Manila Ounes will moderately impact ORV recreational use diminishing this use from 3,000 visitor days per year to nearly 500 visitor days.	Impacts on the Samoa Ounes would be essentially the same as for the No Action (Preferred) Alternative. However, motorized recreation use of 3,000 visitor days on Manila Ounes would be foregone.	Impacts on Samoa Ounes would be the same as for the No Action (Preferred) Alternative; however, vehicle use on the Manila Ounes would benefit increasing use from 3,000 visitor days per year to nearly 5,000 visitor days.	Impacts on the Samoa and Manila Ounes portions of the management area would be the same as for the No Action (Preferred) Alternative -- motorized recreational use would increase from 8,000 visitor days to nearly 17,000 visitor days per year on Samoa Ounes and decrease from 3,000 visitor days to nearly 500 visitor days per year on the Manila Ounes.
Impacts on Botanical Values and Passive Recreation	As a result of fencing 175 acres of rare plant habitat/wetlands on Samoa Dunes and closing it to all motorized vehicle use, botanical values within the area will be protected and passive recreation will be enhanced. Botanical values and passive recreation on the Manila Ounes will moderately benefit as a result of restricting motorized use to a narrow corridor.	Impacts on the Samoa Dunes would be the same as for the No Action (Preferred) Alternative. ORV recreation use on Manila Ounes would be eliminated moderately benefiting botanical values and enhancing opportunities for passive recreational use.	Impacts on the Samoa Dunes would be the same as for the No Action (Preferred) Alternative. There would be significant adverse impact to botanical on Manila Ounes as a result of opening the area to uncontrolled ORV use. opportunities for passive recreation would also be negatively impacted.	Impacts on the Samoa and Manila Ounes would be the same as for the No Action (Preferred) Alternative -- botanical values within the management area would be protected and passive recreation would be enhanced.





TABLE 2-2  
COMPARISON OF ALTERNATIVES: SUMMARY OF ENVIRONMENTAL IMPACTS  
FOR THE LACKS CREEK MANAGEMENT AREA

ISSUES	TIMBER PRODUCTION (PREFERRED ALTERNATIVE)	NO ACTION	ENHANCEMENT OF NATURAL VALUES	ADMINISTRATIVE ADJUSTMENTS
Impacts on the Availability of Timber to the Market and the Viability of the Timber Management Program.	0.5 MMbf per year will be harvested. This, coupled with the acquisition of 1,800 acres of high-site, well-stocked CFL and stand improvements will have a long-term, positive impact on the area's timber resources. The potential commercial timber to market is also expected to increase -- from 32 MMbf to 150 MMbf.	The area's candidate old-growth reserve would be designated an RNA/ACEC reducing the annual production base from 3,200 acres to approximately 2,300 acres. As a result, nearly 21 MMbf of standing volume (worth about \$2 million) would be removed from harvest, reducing the annual available cut from 0.5 MMbf to 0.2 MMbf. Another 6 MMbf of standing volume would also be removed temporarily but would be harvested once the 400 acres on which they are located are disposed.  1,800 acres of high-site, well-stocked CFL would be acquired, timber stand improvements implemented, and access to isolated parcels acquired, offsetting these effects and increasing the potential commercial timber to market from 11 MMbf to nearly 116 MMbf.	All 3,300 acres of CFL would be removed from timber production resulting in the loss of 32 MMbf of standing volume valued at \$3 million. While this will not significantly impact the local economy, it will have a moderate, long-term negative impact on the area's timber program.	Although all suitable CFL will be kept in production, no timber land acquisitions nor stand improvements are proposed which would adversely effect the area's timber resources.
Impacts on Spotted Owls and Other Old-Growth Forest Values.	All 3,200 acres of CFL will be managed for timber production adversely impacting old-growth forest values on 900 acres of candidate old-growth reserve including one pair of spotted owls and a single male owl which will be displaced.	The area's candidate old-growth reserve would be designated an RNA/ACEC protecting old-growth values on 1,800 acres including the one pair of spotted owls and single male owl found in the reserve. The remaining 2,300 acres in the timber production base would be managed for timber production but would not significantly impact old-growth forest values.	The entire management area would be designated an RNA/ACEC moderately benefiting the old-growth values on 1,800 acres. Another 1,800 acres in the Lacks Creek watershed would be acquired further benefiting these values. ORVs would be excluded and the Lacks Creek drainage would be rehabilitated.	The entire management area would be disposed adversely impacting 1,800 acres of the area's old-growth forest values including the one pair of spotted owls and the one male spotted owl. In addition, the TPCC withdrawals and silvicultural prescription of managed old-growth currently practiced and in place would be removed, further diminishing these values.
Impacts on Indemnity Selection, Land Tenure, and Manageability of Scattered Tracts.	None of the area will be disposed, doing nothing to satisfy the State of California indemnity selection entitlements.  Approximately 1,800 acres of high-site, well-stocked CFL will be acquired as will permanent access to timbered tracts, benefiting the manageability of the area.	Although 400 acres would be disposed, the impacts for satisfying the State's indemnity selection entitlement would be the same as the Timber Production (Preferred) Alternative.	Impacts would be the same as the Timber Production (Preferred) Alternative.	All 4,500 acres of public land within the management area would be available for disposal, thereby helping satisfy the State's indemnity selections.  The land is appropriate for King Range acquisition in Humboldt County and could also be used to consolidate Federal lands and resources in areas less remote from BLM administrative influence.





TABLE 2-3

COMPARISON OF ALTERNATIVES: SUMMARY OF ENVIRONMENTAL IMPACTS  
FOR THE BUTTE CREEK MANAGEMENT AREA

ISSUES	ENHANCEMENT OF NATURAL VALUES (PREFERRED ALTERNATIVE)	TIMBER PRODUCTION	NATURAL HISTORY	NO ACTION	ADMINISTRATIVE ADJUSTMENTS
Impact on Availability of Timber to the Market and the Viability of the Timber Management Program.	All 2,100 acres of CFL will be removed from timber production resulting in the loss of 53 MMbf valued at \$5 million current stumpage value, from the market. While this will not significantly impact the local economy, it will have a long-term negative impact on the area's timber program.	0.85 MMbf would be harvested. This, coupled with the acquisition of 900 acres of high-site, well-stocked CFL as well as timber stand improvements on 300 acres and the acquisition of timber access will benefit the area's timber program. As a result the potential commercial to timber market is expected to increase -- from 53 MMbf to 125 MMbf.	Roughly 1,235 acres of CFL in the Butte Creek block would be removed from the timber base removing nearly 0.45 MMbf from the market. This loss would be offset with the acquisition of 900 acres of high-site, well-stocked CFL near Larabee Butte which would add 0.38 MMbf to the annual commercial timber availability and increase the potential commercial timber from 27 MMbf to 63 MMbf.	Approximately 360 acres of old-growth would be designated an RNA/ACEC, and 1,200 acres of CFL would be removed from harvest. As a result 27 MMbf would be removed from the market and the annual available cut reduced from 0.85 MMbf to 0.40 MMbf. This loss will be offset with the acquisition of 900 acres of high-site, well-stocked CFL which would add 0.38 MMbf to the annual commercial timber availability.	Although all suitable CFL will be kept in production, no timber land acquisition or stand improvement are proposed. As a result, the area's timber management program would be significantly impacted.
Impact on Spotted Owls and Other Old-Growth Forest Values.	All CFL will be removed from timber production and the entire area (2,500 acres) designated an RNA/ACEC. As a result, 360 acres of old-growth will be preserved and the habitat for the four existing pair of nesting spotted owls will be maintained. Acquisition of about 900 acres for the expansion of old-growth dependent species and riparian values will also serve to benefit the owls and old-growth forest values. These values will be further enhanced by eliminating livestock grazing, mineral material sales and ORV use.	Roughly 2,000 acres of CFL would be intensively managed for timber production and result in the dispersal of four pair of nesting spotted owls. In addition, 360 acres of old-growth forest values in the Butte Creek portion of the management area would be lost.	Approximately 0.40 MMbf of timber would be harvested from Larabee Butte resulting in the probably dispersal of two pair of spotted owls. Roughly 1,235 acres of CFL in the Butte Creek block would be removed from the timber base, preserving habitat for the two remaining pair of owls. The acquisition of 900 acres in the Butte Creek watershed would allow expansion of old-growth dependent species and riparian values and would further preserve and expand the habitat of the owls.	360 acres of the management area would be designated an RNA/ACEC and 1,200 acres of CFL would be removed from harvest protecting the area's four breeding pair of spotted owls and existing old-growth values.	The entire management area would be disposed adversely impacting the area's old-growth forest values and displacing the four pair of nesting spotted owls found within the area.
Impact on Indemnity Selection, Land Tenure, and Manageability of Scattered Tracts.	None of the land will be disposed, doing nothing to satisfy the State of California's indemnity selection entitlements.  Approximately 900 acres in the Butte Creek watershed will be acquired enhancing riparian values and the manageability of the area's wildlife resources.	The impacts for satisfying the State's indemnity selection entitlement would be the same as the Enhancement of Natural Values (Preferred) Alternative.  Approximately 900 acres of high-site, well-stocked CFL would be acquired enhancing the manageability of the area's timber resources.	The impacts for satisfying the State's indemnity selection entitlement would be the same as the Enhancement of Natural Values (Preferred) Alternative.  Approximately 900 acres in Butte Creek watershed and 900 acres of high-site, well-stocked CFL would be acquired enhancing the manageability of the area's timber and wildlife resources	The impacts for satisfying the State's indemnity selection entitlement would be the same as the Enhancement of Natural Values (Preferred) Alternative.  Approximately 900 acres of high-site, well-stocked CFL would be acquired enhancing the manageability of the area's timber resources.	All 2,500 acres of public land within the management area would be available for disposal, thereby helping to satisfy the State's indemnity selection.  The land is appropriate for King Range acquisition in Humboldt County and could also be used to consolidate Federal lands and resources in areas less remote from BLM administrative influence.





TABLE 2-4  
COMPARISON OF ALTERNATIVES: SUMMARY OF ENVIRONMENTAL IMPACTS  
FOR THE KING RANGE VICINITY MANAGEMENT AREA

ISSUES	ENHANCEMENT OF NATURAL VALUES	NO ACTION
Impact on Indemnity Selection, Land Tenure, and Manage- ability of Scattered Tracts.	<p data-bbox="548 374 901 750">None of the area will be disposed doing nothing to satisfy the State of California indemnity selection entitlements. However, no impact is anticipated as the State Lands Commission has expressed no interest in these tracts.</p> <p data-bbox="548 789 901 1101">Approximately 2,200 acres will be acquired to enhance riparian values, visual resources and timber management and consolidate Federal ownership significantly benefiting administrative efficiencies.</p>	<p data-bbox="965 374 1305 687">Impacts would essentially be the same as the Enhancement of Natural Values (Preferred) Alternative. 1,100 acres would be disposed but only enhance management of the Sinkyone Wilderness State Park.</p> <p data-bbox="965 727 1305 1038">Approximately 1,200 acres would be acquired to enhance riparian values and visual resources and consolidate Federal ownership, significantly benefiting administrative efficiencies.</p>





TABLE 2-5  
COMPARISON OF ALTERNATIVES: SUMMARY OF ENVIRONMENTAL IMPACTS  
FOR THE RED MOUNTAIN MANAGEMENT AREA

ISSUES	ENHANCEMENT OF NATURAL VALUES (PREFERRED ALTERNATIVE)	NO ACTION	ADMINISTRATIVE ADJUSTMENTS
Impact on the Availability of Timber to the Market and the Viability of the Timber Management Program.	<p>700 acres of suitable CFL in Cedar Creek will be removed from the timber production base reducing the amount of timber available to the market from 105 MMbf to 91 MMbf. However, this loss will neither significantly impact the local economy nor have a negative impact on the area's timber program.</p> <p>3,500 acres of high-site, well-stocked CFL will be acquired. This coupled with stand improvements and timber easement acquisitions will moderately benefit the timber program increasing the potential timber to market from 91 MMbf to 450 MMbf.</p>	Impacts would be the same as the Enhancement of Natural Values (Preferred) Alternative.	<p>About 16,000 acres of the area's 16,700 acres of CFL would be disposed and 91 MMbf of timber later harvested posing no impact on the availability of timber to the market.</p> <p>No lands would be acquired and no stand improvements are proposed, adversely impacting the area's timber program.</p>
Impact on Spotted Owls and Other Old-Growth Forest Values.	<p>700 acres of CFL in the NCCRP, the Cedar Creek portion of the Red Mountain ACEC, and along the South Fork of the Eel River will be removed from timber production, protecting 1,910 acres of old-growth reserve and habitat for three pair of spotted owls. About 3,500 acres of land will be acquired and motorized vehicles will be excluded from the more sensitive portions of the management area further benefiting these values.</p> <p>Timber production will be permitted on the remaining 22,100 acres (including the Jewett Rock reserve) but will not significantly impact the area's three pair of spotted owls nor other significant old-growth forest values.</p>	Impacts would essentially be the same as the Enhancement of Natural Values (Preferred) Alternative. However, all 2,710 acres of old-growth candidate reserve (including Jewett Rock) would be preserved.	<p>Although 22,100 acres would be disposed, considerable protection would be afforded 1,910 acres of old-growth reserve, the three pair of spotted owls and other old-growth forest values on the 12,700 acres slated for retention.</p> <p>Old-growth components on the 22,100 acres slated for disposal would be lost but will not significantly affect the preservation of representative samples of the old-growth forest ecosystem or any specific value (such as spotted owls).</p>
Impact on Indemnity Selection, Land Tenure, and Manageability of Scattered Tracts.	<p>3,000 acres of public land within the management area will be available for disposal, thereby helping to satisfy the State's indemnity selection.</p> <p>Approximately 3,500 acres of high-site, well-stocked CFL will be acquired for timber production; 2,600 acres will be acquired to protect peregrin falcon nesting sites; and 900 acres will be acquired to protect riparian values. These acquisitions will enhance the manageability of the area.</p>	<p>2,000 acres would be available for disposal and could be used to help satisfy the State's indemnity selection.</p> <p>Impacts to the area's manageability would be the same as the Enhancement of Natural Values (Preferred) Alternative.</p>	<p>22,100 acres of land encompassing 16,000 acres of CFL would be available for disposal, significantly helping to satisfy the State's indemnity selection.</p> <p>Lands could also be disposed for the proposed acquiring Federal lands and resources elsewhere. This land is appropriate for King Range acquisitions in Humboldt County and could also be used to consolidate Federal lands and resources in areas less remote from BLM administrative influence.</p>





TABLE 2-6

COMPARISON OF ALTERNATIVES: SUMMARY OF ENVIRONMENTAL IMPACTS  
FOR THE COVELO VICINITY MANAGEMENT AREA

ISSUES	ADMINISTRATIVE ADJUSTMENTS (PREFERRED ALTERNATIVE)	NO ACTION
Impact on the Availability of Timber to the Market and the Viability of the Timber Management Program.	<p>All public lands within the management area will be disposed adversely impacting the area's timber management program.</p> <p>All 9,400 acres of available CFL, however, will be kept in timber production pending disposal, providing 1.3 MMbf to the market annually.</p>	<p>All public lands would be retained. Streamside buffers, Little Darby, Willis Ridge, and Eden Creek would be removed from the timber production base reducing the amount of timber available to the market from 89 MMbf to 70 MMbf. 1.1 MMbf would be harvested annually from the remaining 8,500 acres of CFL. However, this reduction will be offset by tree plantings, brush and hardwood release, precommercial thinning and other forest improvements. As a result of these actions the potential commercial timber to market is expected to increase -- from 70 MMbf to 220 MMbf.</p>
Impact on Spotted Owls and Other Old-Growth Forest Values	<p>45,000 acres of public land contiguous to the Mendocino and Six Rivers National Forests will be transferred to the Forest Service. As a result, the spotted owls and other old-growth forest values found on these lands will continue to be protected and will be enhanced through consolidation.</p> <p>The remaining 21,500 acres will be available for disposal. As there are no significant old-growth forest values on these parcels, their disposal will only minimally affect old-growth forest values.</p>	<p>All public lands would be retained and timber harvests would be conducted on the area's available CFL. However, streamside buffers, Little Darby, Willis Ridge and Eden Creek would be removed from the timber production base, protecting the spotted owls and old-growth forest values found on these lands. These areas would also be closed to motorized vehicle use further benefiting old-growth forest values.</p>
Impact on Indemnity Selection, Land Tenure, and Manageability of Scattered Tracts.	<p>45,000 acres of public lands contiguous to National Forest lands will be transferred to the Forest Service consolidating Federal land ownership and benefiting the manageability of the area. The remaining 21,500 acres will be available for in-lieu selections and could help satisfy the State of California indemnity selection entitlement.</p>	<p>None of the area would be disposed, doing nothing to satisfy the State's indemnity selection entitlements. However, no tracts within the area are on the State Lands Commission's interest list. No impacts are, therefore, anticipated.</p> <p>The efficiencies that could be recognized under Forest Service management would also be foregone.</p>





TABLE 2-7  
COMPARISON OF ALTERNATIVES: SUMMARY OF ENVIRONMENTAL IMPACTS  
FOR THE SCATTERED TRACTS MANAGEMENT AREA

ISSUES	ADMINISTRATIVE ADJUSTMENTS (PREFERRED ALTERNATIVES)	ENHANCEMENT OF NATURAL VALUES	NO ACTION
Impact of the Availability of Timber to the Market and the Viability of the Timber Management Program	7,700 acres containing the majority of CFL found within the management area will be disposed. In all probability, however, these lands will be acquired by surrounding landowners and the 108 MMbf of timber made available to the market. While this will not significantly impact the local economy, it will have a minor, long-term negative effect on the area's timber management program.	All CFL within the 6,000 areas proposed for RNA/ACEC designation would be removed from the timber production base. As a result 14 MMbf valued at \$1 million would be lost to the market. The remaining 6,700 acres would be disposed but these lands would probably be acquired by surrounding landowners and 94 MMbf made available to the market. The impacts would be the same as the Administrative Adjustments (Preferred) Alternative.	All CFL within the 3,100 acres proposed for RNA/ACEC designation would be removed from the timber production base. As a result 90 MMbf valued at \$9 million would be lost to the market. Timber on the remaining 1,100 acres of the timber production base would be harvested providing 0.3 MMbf of timber per year to the market until these lands are disposed. While this will not significantly impact the local economy, it will have a significant, long-term negative effect on the area's timber management program.
Impact on Spotted Owls and Other Old-Growth Forest Values	7,700 acres of the management area will be disposed and the TPCC withdrawals and managed old-growth silviculture prescriptions currently in place removed. As a result, some components of old-growth forests will be lost including existing old-growth reserve at Gilham Butte (1,320 acres), Iaqu Buttes (510 acres) and Big Bend (280 acres) and the breeding pair of spotted owls in Iaqu Buttes and the pair of owls in Gilham Butte. 5,000 acres within the Eagle Lake/Greenough Ridge area and The Cedars will be retained and closed to ORV use protecting the peregrin falcon habitat and sensitive plant species on these parcels.	6,700 acres would be disposed and the TPCC withdrawals and managed old-growth silviculture prescriptions currently in place removed. As a result, some components of old-growth forests will be lost including existing old-growth reserve at Gilham Butte (1,320 acres) and Big Bend (280 acres) and one pair of owls. 6,000 acres within the Eagle Peak/Greenough Ridge area, The Cedars, and Iaqu Buttes will be retained, designated RNAs/ACECs, and closed to ORV use protecting old-growth forest values within these areas, including the breeding pair of spotted owls in Iaqu Buttes.	2,700 acres would be disposed and the TPCC withdrawals and managed old-growth silviculture prescriptions currently in place removed. As a result, some components of old-growth forests would be lost including Big Bend (280 acres). 10,000 acres will be retained including, 8,550 acres within the Eagle Peak/Greenough Ridge area, The Cedars, Iaqu Buttes and Gilham Butte. In addition, Iaqu Buttes and Gilham Butte would be designated RNAs/ACECs and closed to ORV use. As a result of these actions, 1,830 acres of old-growth reserve and old-growth forest values within these areas would be protected including the breeding pair of spotted owls in Iaqu Buttes and the pair of spotted owls in Gilham Butte.
Impact on Indemnity Selection, Land Tenure, and Manageability of Scattered Tracts	7,700 acres of public lands within the management area will be available for disposal. However, much of this land is of such poor economic value or presents such significant manageability problems so as to be of no interest to the State Lands Commission. Therefore, nothing would be provided to help satisfy the State's indemnity entitlement.	6,700 acres would be available for disposal but because of the poor economic values of these lands and the management problems they present, nothing would be provided to help satisfy the State's indemnity entitlement. Approximately 1,000 acres of private land within the Eagle Peak/Greenough Ridge area, The Cedars, and Iaqu Buttes would be acquired to consolidate Federal ownership moderately benefiting the manageability of these areas.	The impacts would be the same as the Administrative Adjustments (Preferred) and Natural Values Alternatives.  800 acres of private land around Gilham Butte would be acquired and would minimally benefit the manageability of the area.





## CHAPTER 3

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# AFFECTED ENVIRONMENT





## CHAPTER 3

### AFFECTED ENVIRONMENT

#### INTRODUCTION

Chapter 3 presents a description of the social, economic, and physical components of the environment which are found in the Arcata Resource Area.

The first three general discussions below are presented to better understand the operating environment, significance of the resources, the public concern about spotted owls and old-growth forests, and the background to the State Indemnity Selections. Following these discussions are descriptions of the resource found in each management area.

#### REGIONAL PERSPECTIVE

##### THE SPOTTED OWL

The northern spotted owl occurs in the forested areas of southwestern British Columbia, western Washington, western Oregon, and northwestern California. Information from research, inventories, and monitoring programs indicates that the population may be declining in the region from one to four percent annually.

Spotted owls show a strong preference for old-growth and use mature forest types in their daily and yearlong activities. In Oregon, research indicates home ranges include an average of 2,200 acres of old-growth forest and in Washington the average is nearly 5,000 acres. Research findings indicate that old-growth forests provide conditions for the optimum number of spotted owl prey species. In addition, they provide conditions that make prey available, cavities suitable for nesting, thermal cover, and protection from predators.

Loss of old-growth forest and forest fragmentation contribute to spotted owl population declines. Forest fragmentation results in larger home ranges, greater expenditure of energy for foraging, decreased probability that dispersing juvenile spotted owls will locate suitable habitat, and habitat loss and unsuitability at a greater rate than the actual reduction in old-growth/mature forest acreage.

Habitat managed by BLM may play a crucial role in maintaining genetic links between habitat areas and sustaining a proper distribution of owls throughout their historical range.

Although uncertainties exist throughout the information base on spotted owls, research continues to contribute to the growing literature base.



Over 20 study/research projects are currently under way on spotted owl biology and habitat requirements in the States of Oregon, Washington, and California. Findings from many of these research efforts should be available for reference in the next 5 years while others may not be available in the long term--10 years. There is sufficient information now documenting that if planned timber harvest continues, further decline of the owl population on BLM lands will occur. Additional research is needed for making decisions on maintaining individual owl sites and population viability.

The key issue in the BLM decision to harvest or not harvest the remaining old-growth/mature timber is the uncertainty of the effect of this decision on the overall viability of the owl population. While the significance of BLM lands in maintaining genetic links between other owl populations and population viability is not well known, research on other species and the accepted principles of island biogeography suggest that these lands may provide a critical link.

The northern spotted owl is not listed as a threatened or endangered species, however, it is now a candidate species for such listing. The owl is protected under the Migratory Bird Treaty Act. Region 1 of the Fish and Wildlife Service has classified the owl as a sensitive species. They define a sensitive species as a "vulnerable or declining species, subspecies, or distinct populations that could become federally listed as endangered or threatened in the foreseeable future, throughout all or in a significant portion of their ranges, without active management or removal of threats."

In California the northern spotted owl is classified as a species of special concern by the California Department of Fish and Game, and although this carries no legal status it is intended to draw attention to its declining populations.

In California, Bureau spotted owl inventories from 1980 through 1985 identified 14 owl pairs and 7 single owls. No SOMAs have been established on BLM lands in California. Eight older forest management areas were established in the 1980 land use planning decision, in Wilderness Study Areas, or through other designations.

In the Arcata Resource Area four pair of spotted owls are known to nest in an area having approximately 900 acres of old-growth forest. This 900 acres lies within a total forest management area of about 2,500 acres.

The Ukiah District made an effort in the Timber Management Environmental Impact Statement for Sustained Yield Unit 13 (1981) to address the spotted owl/old-growth issue. The District developed guidelines (Appendix 2-2) to mitigate loss of habitat. In early 1986, the Bureau assigned a team to review the status of the northern spotted owl on BLM lands in western Oregon, Washington, and in northern California. The team was to identify key questions of concern to Bureau managers; to review the existing scientific information about the owl; and identify gaps in that information and where uncertainty exists.



## SIGNIFICANCE OF OLD-GROWTH

The Draft Environmental Impact Statement for Sustained Yield Unit 13 (SYU 13) presents a detailed analysis of the significance of old-growth forests and the public concern which exists in Northern California. A summary and update of these discussions is given below (see SYU 13 DEIS, pp. 3-21 - 3-26 & 3-32 - 3-35 for more details).

Because of the long-term stability of old-growth stands, certain wildlife and plant species have evolved in harmony with this stable condition and little need has arisen for these species to be highly adaptable to rapid changes in their habitat (Wight, 1974). Intensive timber management practices severely alter forest habitat. Old-growth is the most difficult stage of forest succession to provide under present concepts of silviculture and is the stage that is most rapidly being lost (Miller, 1978).

Throughout SYU 13 (for all practical purposes the RMP study area) forest habitat on BLM public lands occurs on small scattered blocks. The highest quality wildlife habitat within these blocks occurs near perennial streams. The BLM controls many widely scattered stands of old-growth mixed evergreen with rhododendron forest (using the Kuchler vegetation classification in Barbour and Major, 1977), in northwestern California. Extensive logging on intervening areas of private land, and to a lesser degree on BLM land, has resulted in the insularization of the forest habitat. As these habitat islands become smaller they lose their ability to provide suitable habitat, particularly for species that need large areas to fulfill their lifecycle requirements. Some of the remaining BLM-managed islands may represent important reservoirs for old-growth and mature forest species; they have the potential to provide long-term unique and diverse habitats.

Natural areas include natural features such as biological, geological, paleontological, or other landscape elements that warrant preservation for scientific or educational purposes because of their uniqueness, scarcity, or representativeness. One of the primary goals of any natural area program is the preservation of representative samples of all ecosystems. The Bureau subscribes to the natural area concept and strives to identify those areas on public lands which warrant such identification. The major ecosystem for consideration here is low elevation mixed evergreen forest which is becoming increasingly rare due to logging in the outer Coast Range.

Significant examples of such low elevation mixed evergreen forest are the King Range National Conservation Area, the Northern California Coast Range Preserve (a cooperative effort of The Nature Conservancy and the BLM), and Big Butte (most of which was included in the Yolla Bolly-Middle Eel Wilderness by the California Wilderness Act of 1984). The candidate old-growth reserves which evolved through the SYU 13 effort are listed under the descriptions of the various management areas. Preservation of old-growth mixed evergreen ecosystem would ideally include large integrated natural systems such as entire watersheds. In addition to the mixed evergreen, a large area would also have a diversity of other habitat types. There are few additional opportunities on Bureau lands in this area for establishment of large, fully integrated areas.



Old-growth forests differ from managed forests in function, structure, and composition. Besides providing specialized habitat for certain plant and animal species, the structural features of old-growth forests, (1) large live trees, (2) large snags, (3) large logs on land, and (4) large logs in streams are critical for maintenance of physical and biological stability in headwater streams, and play important roles in conserving and cycling nutrients and energy (Franklin et al, 1981).

## STATE INDEMNITY SELECTIONS

State claims to Federal land date back to policies adopted by the Federal Government shortly after the American Revolution. As new states were formed, Congress granted several sections in each township to the states to support the common schools. In California these were sections 6 and 36. It is Federal law that no land can be transferred until it has been surveyed. Before the surveys could be completed some of the school sections had been legitimately settled by private parties or reserved by the Federal government as national forests, Indian reservations, military and naval facilities, or for other various uses. States are allowed to select other lands in-lieu of lost lands if they wish, or they can wait for the reservations to be lifted. The states are constrained by both the acreage of the lost land or the monetary value of lost lands, whichever ceiling is reached first.

Currently, the State of California is due approximately 52,000 acres of indemnity lands, or acreage worth the monetary value of the lost lands. The value is between 3 million and 1.7 billion dollars depending upon the status of in-lieu land in the Elk Hills Naval Petroleum Reserve. The charter of the California State Lands Commission (SLC), which manages school sections, is to optimize revenues produced from the selected lands.

Several management areas in the Arcata Resource Area are of interest to the SLC, including about 20,000 acres of timber land. The SLC's interest in selecting lands under its in-lieu entitlement is of major concern to this planning effort.

## MANAGEMENT AREA DESCRIPTION

### SAMOA PENINSULA MANAGEMENT AREA

This management area consists of two parcels totaling 370 acres of public land managed by the Bureau. One is Samoa Dunes (300 acres) on the tip of the Peninsula west of Eureka, and the other is Manila Dunes (70 acres) west of Arcata. Both are coastal tracts which enjoy Pacific Ocean frontage. Approximately 197 acres of the Samoa Dunes parcel is public land under withdrawal to the U.S. Coast Guard. By Memorandum of Understanding (March 13, 1985), the BLM accepted management of 144 acres; about 52.5 acres will remain under withdrawal and will continue to be managed by the U.S. Coast Guard. Relinquishment of the withdrawal on the 144 acres is impeded by The National Wildlife Federation lawsuit. This lawsuit was filed by the National Wildlife Federation in 1985 and enjoins the Department of Interior from revoking, modifying, or terminating any withdrawals or classifications in effect.



## Recreation

Samoa Dunes is a popular recreation site for local residents because it is one of the few public beach access areas near Eureka. Recreational pursuits include ORV riding, target shooting, camping, fishing, surfing, hiking, and scientific study for an estimated 12,000 visitor days per year. ORV use has been estimated at 8,000 visitor days per year on the Samoa Dunes parcel. ORV use could increase about two-fold if the area is fully developed. A 125-acre off-road vehicle park is planned for this parcel (see the Conceptual Development Map, Appendix 1-3). The remainder of the area--roughly 175 acres--will be set aside and fenced to protect the area's sensitive botanical values and habitat, including the Menzie's wallflower. Only two ocean dune areas between San Francisco and Oregon are officially open to ORVs.

The Manila Dunes portion of the management area is also a popular recreation site for local residents. Approximately 4,500 visitor days of recreational use is estimated to occur each year and consists of ORV riding, camping, fishing, surfing, hiking, and scientific study. About two-thirds, or 3,000 visitor days, of the total visitor use is ORV related. The Manila Dunes and a naturally occurring spruce forest have been impacted by this use; signs have been posted by the local ORV clubs and BLM to prevent riders from traveling through these fragile areas. Most of the use occurs on long holiday weekends but light to moderate use occurs daily. As many as 300 vehicles have been observed on Memorial Day in the private camping area south of Manila Dunes.

## Botanical Values and Sensitive Habitats

Samoa Dunes has about 40 acres of habitat for a BLM sensitive plant, the Menzie's wallflower (Erysimum menziesii), and 135 acres of wetlands and associated communities. Manila Dunes also has habitat for Menzie's wallflower, wetlands, open dunes, and a spruce forest. These wetlands are unique. An estimate by the California Department of Fish and Game shows about 90 percent of California historic wetlands have been destroyed. Both of these parcels are used by Humboldt State University and local schools as an environmental classroom and for research. The Nature Conservancy administers similar habitat on the 341-acre Lanphere-Christensen Dune Preserve, one-half mile north of Manila Dunes.

Menzie's wallflower is a Category 1 candidate species and is protected under BLM policy. It is a highly specialized plant, being restricted to dune systems along the coast in three known locations--Monterey, Ten Miles Dunes (near Fort Bragg), and Samoa Peninsula. The dune system, classified by Kuchler as Northern Seashore Community (Elymus Baccharis) is becoming increasingly rare. According to Kuchler there were originally only about 85 miles of this community along the coast in California. The community has been severely impacted by development, particularly in San Francisco, Monterey Bay, and Samoa Peninsula. The south spit and north spit (Samoa Peninsula) along Humboldt Bay was the longest continuous stretch of the Northern Seashore Community--almost 26 miles.



Currently, the BLM's goal for the entire Samoa Peninsula is to develop an overall strategy with other landowners for protecting the sensitive natural values while still providing ORV opportunities.

### Wildlife

Wildlife species occurring in the Samoa Spit area include 86 species and subspecies of mammals and approximately 266 species of birds (Shapiro and Associates, Inc. 1980).

A cypress/eucalyptus grove of about 15 large trees is located on the southwest end of the Samoa Spit. This grove is used year-round by only a few species, however, it may be an important roosting and/or an important visual reference for migrating land birds. Migrating birds are thought to use the grove and then disperse to wetlands habitat where they feed.

California quail and a number of songbird species, especially sparrows and wrens, are common in the dune habitat. Marsh hawks and white-tailed kites forage over the dune areas. Large number of small mammals, such as deer mouse and western harvest mouse are also found in this habitat.

Wetland areas are used by shorebirds, waterfowl, and wading birds for resting and feeding. The greatest use of these wetlands occurs during the winter and spring when the number of birds present in the Humboldt Bay area is greatest.

Four species of birds federally listed as endangered occur in the Humboldt Bay area. The brown pelican is a common summer and fall visitor to the Samoa Spit area. Southern bald eagles and Aleutian Canada geese are migrants through the area and the American peregrine falcon has been observed in the area. However, Bureau lands in the Samoa Spit area are not known to be critical habitat for these birds.

### Cultural Resources

Cultural resources consist of one known prehistoric site (CA-HUM-684) which is not eligible for inclusion in the National Register of Historic Places (NRHP), and many historic features (lighthouse ruins, military bunkers, other facilities). Only the Life Saving Station is on the NRHP and it is the administrative headquarters for the Coast Guard. There are no identified uses by contemporary Native Americans. The only site of local significance is the ruin of Humboldt Harbor Lighthouse (CA-HUM-662H), and the Humboldt Bay Maritime Museum, Inc., has expressed some interest in stabilization and interpretation of the site.

### Minerals

There is no record of past or present mineral activity within the management area. Natural gas and oil are present as seeps southeast of the area in the Rio Dell formation which underlies the Samoa Peninsula, so there is potential for oil and gas. The area is presently under lease, however. Other than oil and gas, there are no known minerals of local or regional significance.



## LACKS CREEK MANAGEMENT AREA

This management area has about 4,500 acres of Federal surface and 500 acres of mineral reserve lands. Most of the area is in the Redwood National Park Protection Zone. See explanation under Timber below.

### Timber

Within the approximately 4,500 acres of public land in the Lacks Creek Management Area there are about 4,300 acres of forest land classified as commercial forest land (CFL). About 1,100 acres of this 4,300 acres is withdrawn from the timber base for protection of fragile sites, steep slopes, and riparian values. The timber lands are primarily Douglas-fir (Pseudotsuga menziesii) and mixed hardwoods.

There is an estimated 32 million board feet (MMBF) of commercial timber and 7,000 cords of hardwood on the 3,200 acres of available CFL and 30 MMBF on those lands withdrawn from the timber base. Under the current 10-year forest management plan (SYU 13), the Bureau annually offers for sale about 0.5 MMBF of commercial timber for the market. No fuelwood has been sold from this management area.

The commercial forest land is site class III and IV, with fairly good reforestation and growth potential. If fully stocked, the 3,200 acres of commercial forest land could support about 91 MMBF of commercial timber. The average timber volume on Bureau lands is about 28 MBF per acre.

Using investment guidelines from the BLM Oregon State Office (Oregon State University Publication, Research Paper 23, 1974) the economic viability for timber management in this area is moderate. A benefit/cost ratio of 1:49 can be achieved for timber harvest operations. About 2,100 acres of the 4,300-acre commercial forest land base have been identified for stand improvement or intermediate cuts, including precommercial thinning and brush and hardwood control.

Reforestation investments involved with backlog reduction on available timber land average about \$216.00 per acre; investment guidelines show an average maximum investment of \$253.00 per acre can be allowed for economically feasible reforestation expenditures. This represents a better than average investment opportunity for getting the available commercial forest land into production.

A 10-year moratorium initiated in 1981 with Redwood National Park, puts an abeyance on timber harvest in the Lacks Creek watershed. The purpose of the moratorium was to allow time for the Park to acquire baseline data within the Redwood Creek watershed. Even after the moratorium expires, timber management activities will be carefully planned due to the sensitive nature of the Redwood Creek watershed.



## Old-Growth Characteristics

About 1,800 acres of the Management Area's 4,500 acres are in a candidate old-growth reserve. The purpose of the reserve is to maintain regional biological diversity, conserve plant and animal genetic stock, protect scarce organisms, and provide for scientific research. Using criteria developed by the Ukiah District Office, analysis of this candidate reserve indicates there are 190 acres of old-growth timber scattered in small pockets ranging from about 10 to 60 acres. The analysis indicates the reserve has moderate value as an old-growth reserve. Approximately 900 acres of the 1,800 acres have been reserved from the commercial timber land base because of unstable slopes. Only about 70 of those 900 acres contain old-growth forest.

An adult spotted owl was observed in the reserve and a juvenile owl which fledged from a nest in the Six Rivers National Forest was detected in 1984. In the spring of 1987, Bureau field inventory located one pair and one single male spotted owl on public land in the management area. However, no nest sites have been found in the management area.

## Wildlife

Species occurring in this management area include the spotted owl and associated old-growth species, salmon and steelhead, black-tailed deer, and black bear. Black bear are very common in the area and hunting pressure for them is high. Four spotted owl observations include one pair and a lone male found in May 1987.

Potential for public lands in the Lacks Creek drainage is to serve as enclaves of habitat for wildlife species that prefer old-growth/mature forests.

There is approximately one mile of anadromous fish habitat in Lacks Creek on Bureau lands in the management area.

Public lands in Lacks Creek could provide a critical stepping stone to link protected spotted owl populations on the Six Rivers National Forest with populations on Redwood National Park lands. This owl stepping stone could help maintain the biological integrity of spotted owls in northern Humboldt County. However, the interdependency of these birds on Bureau land in the Lacks Creek Management Area is unknown.

Public lands in all of the old-growth forests on private lands between the Six Rivers National Forest and the Redwood National Park have been harvested. The only old-growth remaining in this area is on BLM public lands in Lacks Creek drainage.

## Recreation

Recreation consists of deer, bear, and pig hunting, estimated at 250 visitor-days per year. Sightseeing and ORV use account for about 100 visitor-days each per year. The area is remote, little known, and near national parks and forests with more significant recreational opportunities. Lacks Creek is the salmonid stream in the management area, but is closed to salmon and steelhead fishing for protection of spawning habitat.

## Cultural Resources

The likelihood of finding significant prehistoric values on public lands is low because of very steep slopes. Significant prehistoric values do occur on the top of Pine Ridge, east of public lands; contemporary Native Americans collect floral resources on Pine Ridge, again, not on public lands. There are no known historic features of value.

## Minerals

Currently, there are no mineral leases, claims, or prospects on public lands, and little, if any, mineral activity has ever occurred. Prospects for chromium, manganese, gold, copper, limestone, sand, gravel, and stone are located in the region along the major geologic trend and in similar formations as Lacks Creek; this suggests some potential for these minerals in the management area, but minerals are of little economic significance with very little chance of development in the near future.

## BUTTE CREEK MANAGEMENT AREA

This management area has about 2,500 acres of Federal surface and about 1,500 acres of mineral reserve land.

## Timber

Within the approximately 2,500 acres of public land in the Butte Creek Management Area there are about 2,100 acres of forest land classified as commercial timber land. One hundred acres of this 2,100 acres is withdrawn from the timber base for protection of riparian lands, and because of steep slopes or unstable soils. Thus, there is an available commercial timber land base of about 2,000 acres in this management area.

The 2,100 acres of commercial timber land is roughly divided into two areas. The Butte Creek block has about 1,235 acres of commercial timber land while the Larabee Butte block has about 865 acres of commercial timber land.

The Butte Creek Management Area has some of the highest site Douglas fir forest lands in the Arcata Resource Area, with Site Classes II and III predominate. The economic viability of this area for timber production is high. If fully stocked, the 2,000 acres of public commercial forest land could support about 85 MMBF of commercial timber. The average timber volume on Bureau lands is about 42 MBF per acre.

The 2,000 acres currently supports approximately 53 MMBF of commercial timber and 8,000 cords of hardwood. Under the current 10-year forest management plan (SYU 13) the Bureau annually offers for sale about 0.85 MMBF of commercial timber for the market. Of the 0.85 MMBF, approximately 0.45 MMBF is in the Butte Creek block, while 0.40 MMBF is in the Larabee Butte block.



A benefit/cost ratio of about 2:0 can be achieved for timber harvest, and there is a better than average investment opportunity for getting cutover forest land back into production. Over 300 acres have been identified for stand improvement and intermediate cutting. This includes about 100 acres of precommercial thinning, 60 acres of grass control, and about 160 acres of brush and hardwood control. Access is acquired and a large investment has already been made in roads, bridges and forest development.

### Old-Growth Characteristics

About 360 acres in the Butte Creek block are in a candidate old-growth reserve. The purpose of the reserve is to maintain regional biological diversity, conserve plant and animal genetic stock, protect scarce organisms, and provide for scientific research. The 360 acres are mature/old-growth forest. There are four breeding pairs of spotted owls within the management area; all four pairs were nesting in 1986 and there is a high degree of nesting success. There is one known goshawk nest in the area. This is the most significant area within the management area for protection and study of old-growth dependent wildlife species. The Butte Creek block is a textbook example of old-growth forest as defined by the study team of The Nature Conservancy.

### Wildlife

The Butte Creek management area is an excellent example of low elevation old-growth Douglas-fir forest hosting populations of old-growth dependent wildlife species. Among these are four spotted owl breeding pairs.

Spotted owls are also found within the State Park 8 miles west, and on Forest Service land 8 miles to the east. The interdependency of these birds on Bureau old-growth forests in the Butte Creek management area is unknown.

There is presently one known location of goshawk nests in the Butte Creek block and one nest site in the Larabee Butte block.

### Recreation

Recreation consists of very limited hunting and sightseeing. The area is remote, small, and near national forests which offer more significant recreational opportunities. There are about 400 visitor-days, to the area, 200 of which are hunters, 100 from OHV use, and 100 from other uses, such as sightseeing.

### Botanical Values

Listera cordata (heart-leaved tway blade) occurs in the candidate old-growth reserve. It is considered by the California Native Plant Society to be of limited distribution (List 4), but is not listed or a candidate for listing by the U.S. Fish and Wildlife Service, so is not protected by BLM policy.



## Cultural Resources

Eight field inventories for cultural resources have been conducted in the management area with negative results. Potential for finding historic properties is low.

## Minerals

Currently, there are no mining claims or mineral leases in the Butte Creek management area. Several manganese prospects and mines, one gold mine, and a chromite prospect are located in the general region but outside Bureau lands. The southern portion of this area is classified as prospectively valuable for coal. There is very little mineral resource significance at present; only manganese and gold have some likelihood for future development; coal resources are too low in quality for development.

## KING RANGE VICINITY MANAGEMENT AREA

This management area totals about 3,900 acres and consists of three blocks of public land contiguous to the King Range National Conservation Area (Prosper Ridge, Bear Trap Ridge, and Bear Creek), and about fifteen small parcels between the King Range and the Mattole River. The contiguous blocks had been acquired through King Range exchanges. Recently, the smaller tracts have been used for disposal for King Range acquisitions.

## Timber

There are about 3 MMBF of standing volume on an available commercial forest land base of nearly 2,600 acres. Overall, standing volume per acre is low, and there is a large backlog in forest development due to logging and wildfires. If fully stocked these stands would support a timber volume of about 80 MMBF. About 2,400 acres have been identified as needing stand improvement work. The commercial forest land averages Site Class IV. Steep slopes, vegetation competition, and other factors contribute to a marginal timber management program.

## Wildlife

There are no known populations of sensitive animal species on public land in this management area. The most significant wildlife values are salmonid spawning areas in the Bear Creek watershed. The 40-acre Eubanks Creek parcel has Mattole River frontage and is an important salmonid spawning section of the main stem of Eubanks Creek. These areas are very important in restoring the Mattole River to its former status as a highly productive salmon and steelhead producing river.

## Recreation

Recreational opportunities on these lands are overshadowed by the proximity to the King Range National Conservation Area (KRNCA) and to the Sinkyone Wilderness State Park which have significant opportunities for primitive recreation. Public lands adjacent to the King Range could supplement hiking and primitive-type recreation pursuits within the King Range, and



tracts contiguous to the Sinkyone Park have value for consolidation of State Park lands. Recreation use consists primarily of hiking, hunting, sightseeing, driving for pleasure, and is estimated at 1,250 visitor days per year.

### Botanical Values

There are no known populations of sensitive plant species in this management area. The potential for finding leaf reed grass (Calamogrostis foliosa) exists as its habitat is found on nearby lands. This grass is a BLM sensitive species. The potential for unique botanical values is limited.

### Cultural Resources

Riparian benches, particularly at confluences, and large upland flats hold a potential for prehistoric archaeological sites. In contrast to the coastal portion of the KRNCA, very little inventory has been conducted in the interior of this management area. Historic features of local interest include roads and homestead sites. Very little is known about the ethnographic or current use and significance of this area due to radical depopulation of native groups in the historic period.

### Minerals

There are several oil and gas leases and a few lode claims on or near public lands in this management area. There are known deposits of zinc, lead, silver, and copper nearby, although not in the management area. Manganese prospects are common, but manganese occurrences are likely to be small and discontinuous and it is doubtful that economic deposits exist. The area is prospectively valuable for oil and gas; the low permeability and porosity of the geologic formation, and high degree of shearing and vertical fracturing do not indicate a favorable environment for significant oil and gas reservoirs. Overall, the significance of mineral resources is low and it is unlikely that development will occur in the foreseeable future.

### Visual Resources

The King Range area has long been recognized as one of the most unique and scenic stretches of the California coastline. The rugged and remote landscape has seen few intrusions. The BLM's Visual Resource Management system rates this as a landscape of high scenic quality along the coastline and the Mattole River Valley. The coastal slope is designated VRM Class 2, which precludes management activities from being evident in the characteristic landscape. Most of the coastal streams between Shelter Cove and the Mattole River are managed by BLM.

## RED MOUNTAIN MANAGEMENT AREA

The Red Mountain management area consists of about 34,300 acres of Federal surface and about 14,000 acres of mineral reserve land.

### Timber

An estimated 105 MMBF of Douglas fir/Ponderosa pine timber and 75,000 cords of hardwood occur on about 16,700 acres of available commercial forest land. This equates to an annual allowable cut of 1.7 MMBF of timber. About 250 cords of firewood are sold annually. The majority of the commercial forest land is Site Class III and IV, and about 13,900 acres are in need of some form of forest development work (planting, precommercial thinning, brush and hardwood control). If fully stocked the commercial forest land would support 370 MMBF of timber. With the standing volume and specific characteristics of the timber stands (site class, topography, logging systems, hardwood domination), and lack of access to several parcels, the economic viability of this management area is considered marginal. A benefit/cost ratio of about 1:35 can be achieved for timber harvest operations.

Reforestation investments, mainly backlog reduction (hardwood conversion and control), will average around \$317.00 per acre. Investment guidelines show an average maximum investment of \$256.00 per acre can be allowed for economically feasible reforestation expenditures. Therefore, reforestation efforts will be concentrated on those sites that will offer a higher, more cost-effective return on the investment. The use of herbicides and other lower-cost forest development methods could be used to reduce the cost per acre.

### Wildlife and Old-Growth Characteristics

Wildlife species of highest interest include the bald eagle, peregrine falcon, and spotted owl. Bald eagles use the South Fork of the Eel River and Cedar Creek because of the anadromous fish as a food source; no nesting has been discovered. The peregrine falcon, an endangered species, nests on private land in four locations in the management area. Known spotted owl locations are a roosting area on private land near the Northern California Coast Range Preserve (NCCRP)--first seen in 1977; no observations in 1984 or 1985. Spotted owls have been located in Cedar Creek several times including a breeding pair in May 1987. BLM inventory of the Charlton Creek/White Slide area in 1987 located two pair of spotted owls. Neither pair were nesting.

There are three candidate old-growth reserves in the management area totaling 2,700 acres. All have been inventoried for their old-growth values. Cedar Creek (800 acres) is within the existing Red Mountain Research Natural Area/Area of Critical Environmental Concern (RNA/ACEC) and has 180 acres of old-growth timber. Charlton Creek/White Slide area (1,100 acres) has an estimated 600 acres of old-growth forest. Jewett Rock (800 acres) lacks substantial old-growth forest and other reserve characteristics. Other old-growth species found include the chestnut-backed chickadee, hermit thrush, pileated woodpecker, red tree mouse, and flying squirrel.



Cedar Creek is a major tributary of the South Fork of the Eel River and has valuable riparian habitat. It is a significant steelhead spawning and fish rearing stream; some use of this stream by both King and Silver salmon has also been noted. Of special importance is the fact that during low flow periods the flow contribution of Cedar Creek is much larger than the relative size of its watershed would indicate. The Cedar Creek watershed represents six percent of the South Fork of the Eel River watershed above Leggett, whereas at low flow Cedar Creek contributes about 17 percent of the flow at Leggett. Low flow levels are critical to the survival of juvenile steelhead.

Deer occur throughout the area but opportunities for public hunting are very limited due to lack of access.

### Recreation

Recreation in the management area includes dispersed hiking, hunting and fishing, with an estimated 4,500 visitor days of use per year. Cedar Creek has a population of small trout that sustains light fishing pressure; however, the creek is a steelhead nursery stream and fishing is not encouraged.

Approximately 14 miles of the South Fork Eel River within the management area have been federally designated as part of the National Wild and Scenic Rivers System.

About 8 of the 14 miles of the river between Elkhorn Ridge and Brush Mountain are designated "wild," while the remaining 6 miles are designated "recreational." Approximately 5 miles of the "wild" portion and less than 2 miles of the "recreational" portion are bounded by Bureau lands.

In general, public lands do not offer significant recreational opportunities for the public. Sightseeing is an important activity to visitors driving along Highway 101. Public lands seen from this road include Elkhorn Ridge, Brush Mountain, portions of the South Fork Eel River, Shell Rock, and the east slope of Cahto Peak.

### Special Areas

The Northern California Coast Range Preserve is one of only 152 Biosphere Reserves (UNESCO's Man and the Biosphere Program) in the world. It contains about 7,500 acres. It contains some of the largest stands of old-growth Douglas-fir (mixed evergreen) forest left in California. The Nature Conservancy owns about 3,900 acres and the BLM administers about 3,600 acres of the Preserve. It is also designated a National Natural Landmark by the U.S. Park Service, and a Hydrologic Benchmark by U.S. Geological Survey. It was designated as a Research Natural Area and Area of Critical Environmental Concern (RNA/ACEC) by the BLM in 1981.

The ultrabasic soils in the 7,000 acre-Red Mountain RNA/ACEC support the endangered plant McDonald's Rockcress (Arabis mcdonaldiana), and three sensitive plants (Silene campanulata spp. campanulata, Sedum laxum spp. eastwoodiae, Eriogonum kelloggii). Red Mountain is the range extension of



four species and the type locality for nine taxa. The red soils are derived from ultrabasic igneous intrusions which are prized for these botanical values, soils research, and three strategic minerals. Most of the RNA/ACEC is a wilderness study area.

### Cultural Resources

There is a high probability for prehistoric archaeological sites on Mail Ridge and within portions of the major riparian corridor. There is moderate potential for archaeological resource on top of Red Mountain, Elkhorn Ridge, Brush Mountain, Cahto Peak, and the South Fork Eel River corridor. The balance of the area has low potential for archaeological properties. No sites of known historic value have been identified on public lands in this management area. Native American residents of the Laytonville Rancheria have expressed some interest in access to Cahto Peak and ownership of public land; no specific geographic values or issues have been identified.

### Minerals

The mineral potential of Red Mountain includes chromium, nickel, and manganese, and has been well documented for over a century. The Island Mountain Mine to the east produced one million pounds of copper, the only copper producer in the northern Coast Range. Prospects for clay, coal, and limestone are located in the management area, and oil and gas exploration has occurred. One thermal spring (temperature unknown) is located in the area. Only on Red Mountain is there slight potential for mineral production to occur. There is very low potential for oil, gas, and coal, and there are no indications other than one thermal spring to suggest economic geothermal potential.

## COVELO VICINITY MANAGEMENT AREA

The Covelo Vicinity management area has about 66,500 acres of Federal surface and 30,000 acres of mineral reserve land.

### Timber

An estimated 89 MMBF of Douglas fir/Ponderosa pine/white fir timber and 65,000 cords of hardwood occur on 9,400 acres of commercial forest land. This equates to an annual allowable cut of 1.3 MMBF. The majority of the commercial forest land is Site Class III and IV. If fully stocked the commercial forest lands would support 220 MMBF of timber. A benefit/cost ratio of 1:56 can be achieved for timber harvest, and most of the tracts with commercial forest land have access.

Reforestation investments would be about \$365.00 per acre and guidelines show an average maximum investment of \$293.00 per acre; this represents a marginal operation for returning commercial forest land to production. About 1,400 acres, mostly on Brushy Mountain, have been identified as needing forest development work, mostly as a result of past wildfires. Extensive use of herbicides and other lower cost methods would reduce development costs. Currently the use of herbicides is prohibited.



## Wildlife

There are several wildlife species of interest in the management area. The bald eagle feeds on salmon carcass along the Eel River in the fall and spring; no nesting sites are known. Two peregrine falcon nest sites are found in the management area on adjacent private land. One is near Eden Creek southeast of Covelo and the other near Mina, north of Covelo. These falcons use public lands for foraging. Spotted owls are found in the Halls Creek area.

## Recreation

Recreation use consists primarily of deer hunting in the Thatcher Ridge area, accounting for an estimated 500 visitor days per year. Rafting and kayaking occur along portions of the Eel River. Other recreation activities such as driving for pleasure/sightseeing, off-road vehicle use, and fishing amount to only about 500 visitor days because of limited public access.

The main stem, and both the North Fork and Middle Fork of the Eel River are federally designated as a Wild and Scenic River. The total length of this designation is about 110 miles. Approximately 3 miles of the main stem, 3 miles of the North Fork and 5 miles of the Middle Fork pass through BLM lands. Visitor use on these portions of the river is primarily from boating, and is estimated at 150 visitor days per year.

Large, private hunting clubs, and the proximity of the Six Rivers and Mendocino National Forests overshadow recreational opportunities on public lands. Total annual recreation use on public lands in the management area is estimated to be less than 1,000 visitor days.

## Special Areas and Old-Growth Characteristics

Spotted owl locations consist of two individuals (breeding status unknown) near Thatcher Ridge. A candidate old-growth reserve at Halls Creek was inventoried in 1987 for wildlife. One pair of spotted owls was found, but they were not nesting. The reserve is estimated to have 300 acres of old-growth timber. Another tract of interest, Little Darby east of Willis, is managed as a public environmental education (day use) area. School groups visit the area in the spring. Little Darby does offer natural values such as old-growth Douglas-fir (including the tallest known Douglas-fir on public lands in the Ukiah District), chaparral vegetation, riparian habitat, and diversity of bird species.

## Botanical Values

The most significant botanical values in the management area include an extensive stand of Sargent cypress, and the BLM sensitive plant species Pogogyne douglasii var. parviflora which are found in the Eden Creek area. The cypress is recovering from defoliation by the silver spotted tiger moth. This is unique, in that, rarely is such an infestation allowed to run its course without human intervention.



## Cultural Resources

Archival and field inventories conducted in this management area indicate substantial prehistoric and ethnographic land use. Ethnographers have identified several Pitch Wailaki village sites along Casoose Creek and North Fork Eel River, many of them on public land; the present condition of these sites has not been assessed. Prehistoric sites are also known for the Middle Fork Eel and the Big Butte vicinity. Generally, public lands within this management area are of low archaeological sensitivity, because of the rugged terrain; however, moderate potential for sites exists at upland areas east and northeast of Eden Valley and Brushy Mountain, and high potential exists along riparian terraces, especially at confluences.

There have been only limited attempts to identify historic or Native American values for the area because of the active historical use of the Round Valley vicinity and of the presence there now of the Round Valley Indian Reservation, the potential for such values seems high.

## Minerals

There are no mineral leases on the subject lands, but some mining claims have been located. This portion of Mendocino County was one of the largest producers of manganese in California and the area has numerous manganese prospects and past producing mines. Manganese occurs largely on stratabound deposits of manganese dioxide in Franciscan chert, and while the deposits are limited in size and some deposits have been mined out, the area is geologically favorable for manganese and has economic potential for this mineral. Chromite has been mined in two locations, and the area has very little potential for copper. Portions of the area are rated prospectively valuable for coal, geothermal, oil and gas, and carbon dioxide, however, the potential is low for oil and gas, carbon dioxide, and geothermal, and moderate for coal.

## SCATTERED TRACTS MANAGEMENT AREA

This management area is comprised of small, isolated tracts of public lands in Humboldt, Trinity, Mendocino, and Sonoma Counties. There are over 80 individual tracts of Federal surface management totaling about 12,700 acres, and numerous mineral reserve land (MRL) tracts with concentrations of MRL in Sonoma County west of Lake Sonoma, Mendocino County on Pine Ridge west of Ukiah, and Humboldt County north of King Range.

## Timber

The only areas with any economic potential for timber management are the four major blocks: Laqua Buttes/Big Bend, Gilham Butte, Pine Ridge, Montgomery Woods. These four blocks total 7,600 acres with about 3,700 acres of commercial forest land included in this total. The entire management area has about 6,200 acres of commercial forest land. There is an estimated 108 MMBF of timber and 50,000 cords of hardwood on these tracts. However, only 3,700 acres, 85 MMBF, are economically available for harvest; this equates to an annual allowable cut of 1.4 MMBF. The majority of this land is Site Class III and IV. When fully stocked these stands would support 130 MMBF of timber.



About 2,100 acres have been identified as needing forest development work. Reforestation investment analysis shows a negative proposition for improving stocking. The economic viability of managing scattered forest land parcels has always been a concern. Travel expense, access difficulties, and the small number of acres have limited the BLM to custodial management. The relatively recent subdivision of timber industry lands and ranches into rural residential lots has made timber management more complex. The number of landowners from which to secure easements has dramatically increased and the residents' desire for rural peace-and-quiet constrains timber management activities.

### Wildlife and Old-Growth Characteristics

Single spotted owls have been observed at Iaqua Buttes (1984) and a breeding pair was discovered in 1987. A pair of spotted owls was also sighted at Gilham Butte in 1987, but breeding in this area has not been recorded. Eagle Peak, and Greenough Ridge, west of Ukiah, are near known peregrine falcon nesting sites. Three candidate old-growth reserves are in this management area totaling 2,110 acres: Gilham Butte, Iaqua Buttes, and Big Bend. Of the three prospects, Iaqua Buttes (510 acres), has the highest potential for inclusion in a thematic old-growth system based on inventory standards; it has 185 acres of old-growth timber, perennial water, and its location makes it relatively valuable as a biological outpost. Big Bend (280 acres) has little potential because of limited acreage. Gilham Butte (1,320 acres) has 390 acres of old-growth timber, but has severely limited perennial water and has a low diversity of flora and fauna typically found on other candidate reserves. Also, the value of Gilham Butte as an old-growth dispersal "island" is diminished because of its proximity to the 50,000-acre Humboldt Redwoods State Park and the Honeydew drainage within the King Range National Conservation Area. These two areas have old-growth values. There are large stands of virgin Douglas-fir within the coastal zone of the King Range that have not yet been inventoried for old-growth and dependent species.

### Recreation

Recreational pursuits in the scattered tracts management area are generally limited to casual use by surrounding landowners or hunters. Most of the tracts are relatively small, steep, forested upland parcels with no public access. The area of The Cedars, a unique geologic outcrop in Sonoma County west of Healdsburg, has been identified on preliminary maps by the Sonoma County Planning Department (which is revising/updating the County general land use plan) as a potential park. Some parcels, such as Goat Rock, are only of local recreational interest. This tract contains a large rock outcropping and huge boulders in the river. A small trail leads from Highway 36 to sunbathing areas and fishing holes. The Weitchpec parcel has public access from Highway 96 and leads to two fishing holes. Recreation use of both parcels are overshadowed by their proximity to National Forest lands. While portions of the Eel River are designated wild and scenic (see "Covelo Management Area" discussion) only four small Bureau tracts are located on the river. There is no public access to these tracts. A trail connecting the Humboldt Redwoods State Park, Gilham Butte, and King Range has been suggested through the years. A hiking/horseback trail is partially complete, located in the northern portion of

the Gilham Butte block. There is no public access, but some visitors from Humboldt Redwoods State Park hike or ride horses into Gilham Butte from the park. Because of the small, widely scattered nature of the public lands in this management area, and the relative proximity of National Forest lands, there is little justification to attempt active recreational management of any of these parcels.

### Botanical Values

Significant botanical values are limited to The Cedars, which has two BLM sensitive plant species (two subspecies of Streptanthus morrisonii), and Bear Buttes (north of Garberville) which was the site of Astragalus agnicidus (presumed extinct). Determination of the significance of the Streptanthus at The Cedars is awaiting completion of "The Geysers Streptanthus Study." Bear Buttes will be thoroughly inventoried for the Astragalus before final disposition or use.

### Cultural Resources

The broad geographic distribution of these parcels defies categorization of cultural resources. As a whole these parcels could be considered of low sensitivity because of their generally rugged character. The only tracts which have a high potential for extant cultural resources are located on the Eel River between Dos Rios and Kekawaka. Moderate potential exists at the confluence of perennial streams, e.g., Mattole Canyon and Cameron Creek, or atop major trending ridges, for example, Pine Ridge and Irene Peak.

### Minerals

As discussed under other management areas, localized potential for manganese and oil and gas does exist throughout the area. Little, if any, development of these resources is likely to occur in the foreseeable future.





## CHAPTER 4

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# ENVIRONMENTAL CONSEQUENCES





## CHAPTER 4

### ENVIRONMENTAL CONSEQUENCES

#### INTRODUCTION

This chapter analyzes the environmental impacts of the management alternatives presented in Chapter 2. Since the alternatives describe overall management emphasis, and do not propose specific, on-the-ground projects or actions, the environmental consequences of the alternatives are identified in comparative, general terms. In most cases, subsequent analysis will be required to implement resource management decisions. More detailed or site-specific studies will be conducted in compliance with the National Environmental Policy Act and its implementing regulations as the need arises.

The impact analysis focuses on the issues and management concerns described in Chapter 1. Impacts are discussed by issue for each management area. Under each issue, alternatives are covered in the same order they are presented in Chapter 2. A cumulative impact analysis for the entire Planning Area follows this discussion on page 4-20.

The allowable cut and standing volume figures expressed in this chapter are strictly for planning analysis and impact comparison purposes only. These numbers represent what can be available to the timber market through BLM timber sales or private (acquired land) timber sales. Discussions of "long-term" effects represent one rotation or more (75 to 110 years) and assume normal stand stocking, conservative estimates of growth, and in some cases the acquisition of a certain amount of commercial forest land (CFL). Average volumes-per-acre in each management area were used to calculate these figures. Short-term standing volume or allowable cut figures were based on actual inventory data projected up to one rotation. The average volume-per-acre figures were derived from these data.

Impact summary tables at the end of Chapter 2 provide comparative analyses of these alternatives and their impacts on the issues selected for analysis by management area (Tables 2-1 through 2-7). Table S-1, p. vii, provides a comparative analysis of these alternatives for the entire Planning Area.

#### MANAGEMENT AREA IMPACTS

##### SAMOA PENINSULA MANAGEMENT AREA

##### Impact on Off-road Vehicle (ORV) Recreation Use Levels

##### No Action (Preferred) Alternative

The NO ACTION (PREFERRED) ALTERNATIVE allows controlled ORV use on Samoa Dunes and limited use on Manila Dunes. Current motorized recreation use on Samoa Dunes is estimated at 8,000 visitor days per year. This use will benefit from the development of the 125-acre off-road vehicle park proposed for Samoa Dunes increasing ORV use to about 17,000 visitor days



per year. The closure of 175 acres of the Samoa Dunes to motorized vehicle use will adversely affect off-road vehicle recreation opportunities. The loss of these opportunities, however, will be offset by the recreational developments already discussed.

On Manila Dunes, current ORV use is estimated to be 3,000 visitor days annually. By confining vehicles to a beach corridor, motorized recreation opportunities will be adversely affected because of the reduced amount of land open to ORV use. The number of riders at Manila Dunes will decrease from 3,000 to about 500 visitors per year. As a result, a greater demand for and increased ORV use of the Samoa Dunes will occur.

#### Enhancement of Natural Values Alternative

Impacts to ORV recreation use levels on the Samoa Dunes portion of the management area under the ENHANCEMENT OF NATURAL VALUES ALTERNATIVE would be essentially the same as those for the NO ACTION ALTERNATIVE--use would increase from 8,000 visitor days to nearly 17,000 visitor days as a result of developing the off-road vehicle park and greater demand to use this area due to the closure of motor vehicles use on private lands. On the Manila Dunes portion, however, ORV use would be prohibited over the entire area eliminating ORV recreation use opportunities altogether and the 3,000 visitor days of motorized recreational use currently estimated to occur.

#### Recreation Enhancement Alternative

The RECREATION ENHANCEMENT ALTERNATIVE is designed to actively promote ORV use on the two parcels of public land. Under this alternative, an off-road vehicle park would be developed on Samoa Dunes and approximately 40 acres of land near Manila Dunes would be acquired to improve vehicle as well as pedestrian access. As a result, ORV recreation use would significantly benefit, increasing the amount of ORV use on the Samoa Dunes from the 8,000 visitor days currently estimated to occur to nearly 17,000 visitor days and from 3,000 visitor days to nearly 5,000 visitor days on the Manila Dunes. Unauthorized vehicle use outside the management area is also likely to increase but would be restricted by posting boundaries and increasing patrols in the area. Unlike the NO ACTION ALTERNATIVE, the Manila Dunes would be opened to motorized vehicle use which would also benefit ORV recreational use.

#### Administrative Adjustments Alternative

Impacts to ORV recreation use levels on the Samoa Dunes portion of the management area under the ADMINISTRATIVE ADJUSTMENTS ALTERNATIVE would be essentially the same as those for the NO ACTION ALTERNATIVE--use would increase from 8,000 visitor days to nearly 17,000 visitor days primarily as a result of developing the off-road vehicle park. On the Manila Dunes, motorized recreation opportunities would be adversely affected because of the reduced amount of land open to ORV use. The number of riders at Manila Dunes would decrease from 3,000 visitor days per year to about 500 visitor days. As a result, a greater demand for and increased ORV use of the Samoa Dunes will occur.



## Impact on Botanical Values (Including Wetlands) and Passive Recreation

### No Action (Preferred) Alternative

The NO ACTION (PREFERRED) ALTERNATIVE provides for the protection of wetlands and Menzie's wallflower and the enhancement of passive types of recreation. Under this alternative, 175 acres of land in the Samoa Dunes area will be closed to motorized vehicles. Motorized vehicles will be limited to a designated corridor in the Manila Dunes, thereby reducing the noise and surface disturbance associated with this use. This will benefit the area's botanical values and enhance nonmotorized recreation uses such as hiking, camping, sightseeing, etc. Designation of the Manila Dunes as an Outstanding Natural Area (ONA)/Area of Critical Environmental Concern (ACEC) will focus greater attention on the area's natural values and serve to further enhance these values.

The ORV recreational facility planned for the Samoa Dunes and the acquisition of approximately 40 acres near Manila Dunes (to improve vehicle access) will increase the amount of ORV use in the management area, but fencing of sensitive habitat, increasing patrols, more field monitoring, and posting boundaries will minimize any adverse impacts.

### Enhancement of Natural Values Alternative

The ENHANCEMENT OF NATURAL VALUES ALTERNATIVE would prohibit ORV use on the Manila Dunes portion of the management area, moderately benefiting the area's botanical values and passive recreation opportunities. The impact on these values and opportunities in the Samoa Dunes portion under this alternative would be the same as those for the NO ACTION ALTERNATIVE. The ORV park planned for the area would be developed and ORV use would triple from 8,000 visitor days per year to 17,000 visitor days. However, any adverse impacts that might result from increased vehicular use would be minimized by fencing the 175 acres of sensitive plant habitat, increasing patrols, monitoring, and interpretive educational activities, and posting the boundaries of the project area.

### Recreation Enhancement Alternative

Under the RECREATION ENHANCEMENT ALTERNATIVE, the Manila Dunes would be open to motorized vehicle use and approximately 40 acres would be acquired to improve vehicle access. As a result, the area's wetlands and Menzie's wallflower populations would be significantly impacted as would passive recreational opportunities. Increased patrols and more field monitoring of these resources would help diminish these impacts, but only minimally. Impacts to botanical values and passive recreation opportunities on the Samoa Dunes would be the same as those described in the NO ACTION and ENHANCEMENT OF NATURAL VALUES ALTERNATIVES.

### Administrative Adjustments Alternative

Like the NO ACTION ALTERNATIVE, the ADMINISTRATIVE ADJUSTMENTS ALTERNATIVE also provides for the protection of wetlands and Menzie's wallflower and the enhancement of passive types of recreation. Under this alternative, 175 acres of land in the Samoa Dunes area would be closed to motorized



vehicles. Roughly half of this land is slated for disposal, but would remain closed to motorized vehicle use. Motorized vehicles would be limited to a designated corridor in the Manila Dunes, thereby reducing the noise and surface disturbance associated with this use. These actions would benefit the management area's botanical values and enhance nonmotorized recreation uses such as hiking, camping, sightseeing, etc. Designation of the Manila Dunes as a ONA/ACEC would focus greater attention on the area's natural values and serve to further enhance these values.

The ORV facility planned for the Samoa Dunes and the acquisition of approximately 40 acres near Manila Dunes (to improve vehicle access) would increase the amount of ORV use in the management area, but fencing of sensitive habitat, increasing patrols, more field monitoring, and posting boundaries would minimize any adverse impacts.

#### LACKS CREEK MANAGEMENT AREA

##### Impact on the Availability of Timber to the Market and the Viability of the Timber Management Program

##### Timber Production (Preferred) Alternative

Under the TIMBER PRODUCTION (PREFERRED) ALTERNATIVE the 3,200 acres of commercial forest land (CFL) within the management area will be managed for timber production. About 0.5 MMBF per year will be harvested. While this will not significantly benefit the local economy, it will have a long-term, positive impact on the area's timber resources and the availability of timber to the market. The acquisition of 1,800 acres of high-site, well-stocked CFL as well as stand improvements outlined in SYU 13, and the acquisition of timber access will also benefit the timber program. As a result of these actions, the potential commercial timber to market could increase five-fold--from 32 MMBF currently available, to nearly 150 MMBF.

##### No Action Alternative

The NO ACTION ALTERNATIVE establishes an 1,800-acre, old-growth Research Natural Area/Area of Critical Environmental Concern (RNA/ACEC) within the Lacks Creek Management Area. Approximately half of this land is within the available CFL and will be removed from the annual production base reducing the base from 3,200 acres to approximately 2,300 acres. As a result, nearly 21 MMBF of standing volume (worth about \$2 million) would be removed from harvest reducing the annual available cut from 0.5 MMBF to 0.2 MMBF over the first rotation. In addition, 400 acres west of Lacks Creek are proposed for disposal under this alternative. Approximately three-quarters of this land is commercial forest land and would be removed from the timber production base representing 6 MMBF of standing volume. While this will not significantly impact the local economy, it would have a minor long-term effect on the area's timber resources and the availability of timber to the market. These effects would be offset by the acquisition of 1,800 acres of high-site, well-stocked CFL proposed under this alternative, as well as, timber stand improvements outlined in SYU 13



and the acquisition of timber access. As a result of these actions, the potential commercial timber to market is expected to increase by 105 MMBF--from 11 MMBF which would be available after the old-growth reserve is designated as an ACEC, to nearly 116 MMBF.

#### Enhancement of Natural Values Alternative

Under the ENHANCEMENT OF NATURAL VALUES ALTERNATIVE, all 3,300 acres of the area's available commercial forest lands would be removed from timber production resulting in the loss to the market of 32 MMBF of standing volume valued at \$3 million. While this would not significantly impact the local economy, it would have a moderate, long-term negative impact on the area's timber program. In addition, no timber land acquisitions are proposed nor stand improvements which would adversely affect the area's timber resources.

#### Administrative Adjustments Alternative

All public lands within the Lacks Creek Management Area would be disposed under the ADMINISTRATIVE ADJUSTMENTS ALTERNATIVE adversely impacting the Resource Area's timber management program. However, all suitable commercial forest land would be kept in timber production pending disposal, providing timber to market. Like the ENHANCEMENT OF NATURAL VALUES ALTERNATIVE, no timber land acquisitions are proposed nor stand improvements which would adversely affect the area's timber resources.

#### Impact on Spotted Owls and Other Old-Growth Forest Values

##### Timber Production (Preferred) Alternative

Under the TIMBER PRODUCTION (PREFERRED) ALTERNATIVE all 3,200 acres of commercial forest land will be managed for timber production. One-half of the management area's 1,800-acre candidate old-growth reserve is within the available CFL. Old-growth forest values on 900 acres will therefore, be adversely affected including a pair of spotted owls recently sighted within this portion of the candidate old-growth reserve and an individual owl. Dispersed, unstructured recreation use and limited motorized recreational use will also be permitted but will have no adverse impact on old-growth values because of the limited amount of recreation use the area is projected to receive. As a part of the Watershed Activity Plan (which will be developed under this alternative), the Lacks Creek drainage will be rehabilitated. This will have a minor, benefiting impact on old-growth values within the drainage over time.

##### No Action Alternative

Under the NO ACTION ALTERNATIVE, the area's 1,800-acre candidate old-growth reserve would be designated an RNA/ACEC. As a result, 900 acres of candidate old-growth reserve would be removed from the timber production base and the 190 acres of old-growth timber scattered in small pockets throughout the reserve would be protected. This may provide habitat for the one pair of spotted owls recently sighted in the area. The remaining 2,300 acres in the timber production base would be managed for various forest products, but would have no significant impact on the area's old-growth



values. Although no spotted owls have been sighted recently in this or other areas outside the reserve, a 300-acre set-aside is proposed under this alternative to protect any owls that may be sighted. Lands within the area would be monitored periodically for the presence of additional owls. In addition, the rehabilitation of the Lacks Creek drainage would have a minor, benefiting impact on the owl and other old-growth values within the drainage over time.

Approximately 400 acres west of Lacks Creek are proposed for disposal but contain no outstanding, old-growth and, therefore, would not affect old-growth values.

#### Enhancement of Natural Values Alternative

The ENHANCEMENT OF NATURAL VALUES ALTERNATIVE would designate the entire management area as a Research Natural Area/Area of Critical Environmental Concern and remove all suitable commercial forest lands from timber production. This would moderately benefit the area's old-growth values including the one pair of spotted owls recently sighted in the area. In addition, the rehabilitation of Lacks Creek drainage proposed with this alternative would have a minor, benefiting impact on the owls and other old-growth values within the drainage over time. The exclusion of motorized vehicles in the management area as well as the proposed monitoring efforts would also benefit these values. Dispersed, unstructured recreation would still be permitted, but would have no adverse impacts.

#### Administrative Adjustments Alternative

All public lands within the Lacks Creek Management Area would be disposed under the ADMINISTRATIVE ADJUSTMENTS ALTERNATIVE, adversely impacting the area's old-growth values, including the pair of spotted owls recently sighted in the southern half of the candidate old-growth reserve and the individual owl in the northern portion. In addition, the Timber Production Capability Classification (TPCC) withdrawals for fragile sites and the silvicultural prescription of Managed Old-Growth currently practiced and in-place would be removed, further diminishing these values.

#### Impact on Indemnity Selection, Land Tenure, and Manageability of Scattered Tracts

##### Timber Production (Preferred) Alternative

Under the TIMBER PRODUCTION (PREFERRED) ALTERNATIVE none of the 4,500 acres of public lands within the Lacks Creek Management Area will be disposed, doing nothing to satisfy the State of California's indemnity selection entitlements. The area is on the State Land Commission's interest list, but is a lower priority than other blocks of land in the Resource Area.

Approximately 1,800 acres of high-site, well-stocked CFL will be acquired under this alternative to consolidate land for long-term timber management, thereby, benefiting the manageability of the area. The acquisition of nonexclusive (permanent) access to these timbered tracts surrounded by private lands will also enhance the area's manageability.



## No Action Alternative

Although 400 acres of public lands within the management area would be available for disposal under the NO ACTION ALTERNATIVE, the impacts to indemnity selection, land tenure, and manageability under this alternative would be the same as those described for the TIMBER PRODUCTION ALTERNATIVE.

## Enhancement of Natural Values Alternative

As in the TIMBER PRODUCTION ALTERNATIVE, none of the 4,500 acres of public lands within the Lacks Creek Management Area would be available for disposal under the ENHANCEMENT OF NATURAL VALUES ALTERNATIVE, doing nothing to satisfy the State's indemnity selection entitlement. Approximately 1,800 acres of land within the Lacks Creek watershed would be acquired to enhance old-growth dependent wildlife species and riparian values which would benefit the manageability of the area for natural values.

## Administrative Adjustments Alternative

Under the ADMINISTRATIVE ADJUSTMENTS ALTERNATIVE, all of the 4,500 acres of public land within the Lacks Creek management area would be available for disposal. Because of the relatively high-site quality and surrounding land uses, this is a reasonable area for long-term timber management by the California State Lands Commission (SLC); however, this is not an area of extensive SLC presence or administrative influence. Still, the availability of these lands--particularly the 3,200 acres of commercial forest land--could help satisfy the State's indemnity selections.

This alternative also allows disposal for the purpose of acquiring Federal lands and resources elsewhere. The land is appropriate for King Range acquisitions in Humboldt County, and could be used to consolidate Federal lands and resources in areas less remote from BLM administrative influence, including acquiring high priority lands in other BLM districts (at a favorable ratio of acres required to acres disposed due to the economic value of the standing timber).

## BUTTE CREEK MANAGEMENT AREA

### Impact on the Availability of Timber to the Market and the Viability of the Timber Management Program

#### Enhancement of Natural Values (Preferred) Alternative

The ENHANCEMENT OF NATURAL VALUES (PREFERRED) ALTERNATIVE will remove all 2,100 acres of commercial forest land from timber production. This impact will result in withholding 53 MMBF of commercial timber, estimated at about \$5 million current stumpage value, from the market. About 0.85 MMBF will not be harvested annually. While this will not significantly impact the local economy, it will have a moderate, long-term negative impact on the area's timber program. The geographic area is ideal for attempting long-term management for predictable levels of timber production and under this alternative the opportunity will be foregone, significantly impacting the Resource Area's timber management program.



## Timber Production Alternative

Under the TIMBER PRODUCTION ALTERNATIVE, 2,000 acres of commercial forest land (CFL) would be managed for timber. About 0.85 MMBF would be harvested annually. While this would not significantly benefit the local economy, it would have a long-term, positive impact on the area's timber resources and the availability of timber to the market. The acquisition of 900 acres of high-site, well-stocked CFL, as well as timber stand improvements outlined in SYU 13 on 300 acres, and the acquisition of timber access would also benefit the timber program. As a result of these actions, the commercial timber to market is expected to increase---from 53 MMBF to 125 MMBF---significantly benefiting the area's timber management program. Retention of the streamside buffer zones, totaling about 100 acres would remove 4 MMBF of commercial timber, but would not impact the timber program.

## Natural History Alternative

Under the NATURAL HISTORY ALTERNATIVE, all suitable commercial forest land in the Butte Creek block would be removed from the timber base (roughly 1,235 acres). Streamside buffers would also be removed reducing the total production base in the management area from 2,100 acres to 825 acres. As a result, nearly 0.45 MMBF would be removed from harvest, reducing the annual available cut from 0.85 MMBF to 0.40 MMBF over the first rotation. This loss, however, would be offset by the acquisition of 900 acres of high-site, well-stocked CFL near the Larabee Butte block which would add 0.38 MMBF to the annual commercial timber availability, maintaining the economic viability of the management area for timber production.

Timber stand improvements on over 300 acres are also proposed and consist of 100 acres of precommercial thinning, 60 acres of grass control, and about 160 acres of brush and hardwood control. These improvements would beneficially impact the area's timber resources.

## No Action Alternative

The NO ACTION ALTERNATIVE formally establishes a 360-acre old-growth RNA/ACEC on the Butte Creek portion of the management area and precludes timber harvest on approximately 1,200 acres because of the presence of spotted owls. As a result, about 27 MMBF of commercial timber land would be removed from market availability and the annual available cut would be reduced from 0.85 MMBF to 0.40 MMBF over the first rotation. Like the NATURAL HISTORY ALTERNATIVE, however, this loss would be offset by the acquisition of approximately 900 acres of high-site, well-stocked CFL near the Larabee Butte portion of the management area which would add 0.38 MMBF to the annual commercial timber availability, thereby maintaining the economic viability of the management area for timber production.

Timber stand improvements on over 300 acres are also proposed and would beneficially impact the area's timber resources.



## Administrative Adjustments Alternative

Under the ADMINISTRATIVE ADJUSTMENT ALTERNATIVE, all of the 2,500 acres of public land within the Butte Creek management area would be available for disposal. These lands are Priority I on the State Lands Commission's State Indemnity Selection list and would, therefore, probably be acquired by the State, maintaining the availability of 53 MMBF of commercial timber to the market. Since lands acquired by the State towards settlement of the remaining in-lieu entitlement are not made in exchange for other lands, the Bureau would not acquire any land in return, significantly impacting the area's timber management program.

The alternative also allows disposal for the purpose of acquiring Federal lands and resources elsewhere. These lands could be used to consolidate Federal interests in areas of high visibility and significant Federal ownership, including acquiring high priority lands in other BLM districts (at a favorable ratio of acres required to acres disposed due to the economic value of the standing timber).

## Impact on Spotted Owls and Other Old-Growth Forest Values

### Enhancement of Natural Values (Preferred) Alternative

The ENHANCEMENT OF NATURAL VALUES (PREFERRED) ALTERNATIVE will remove all suitable commercial forest lands from timber production and designate the entire management area as a Research Natural Area/Area of Critical Environmental Concern. As a result, habitat for the four existing pair of spotted owls will be maintained. This area may be an old-growth island or "stepping stone" useful for owl dispersal between Bureau, Forest Service, and State old-growth lands. In addition, the acquisition of about 900 acres of private land in the Butte Creek watershed for the expansion of old-growth dependent species and riparian values will benefit the spotted owl and old-growth forest values. Long-term biological and botanical research will also be assured by retaining the area in its natural state and through establishing a monitoring program. Livestock grazing will not be allowed, and mineral material sales and off-highway vehicle use of 100 visitor days will be prohibited further protecting old-growth values and minimizing any disturbance to the spotted owls.

### Timber Production Alternative

The TIMBER PRODUCTION ALTERNATIVE does not consider old-growth characteristics or dependent wildlife species in management strategies, except for using managed old-growth as a silvicultural prescription. All 2,000 acres of available commercial forest land would be intensively managed for timber production and result in the loss of the four pair of nesting spotted owls found within the management area. These owls would probably disperse to nearby Forest Service or State Park lands. In addition, 360 acres of old-growth values in the Butte Creek portion of the management area would be lost. Off-highway vehicle use, even in limited designated areas under this alternative, may further disrupt the owls and contribute to their dispersal.



## Natural History Alternative

The NATURAL HISTORY ALTERNATIVE is designed to consider all old-growth values, including spotted owls, by not permitting commercial forest harvest on the Butte Creek portion of the management area, and to manage for timber production on the Larabee Butte portion. Approximately 0.40 MMBF of timber would be harvested annually from the available forest land in the Larabee Butte block resulting in the loss, or probable dispersal, of two pair of spotted owls. Retention of the Butte Creek block for old-growth values would protect habitat for the two remaining pair of spotted owls found in the management area and preserve 360 acres of old-growth forest values. In addition, the acquisition of 900 acres in the Butte Creek watershed would allow expansion of old-growth dependent species and riparian values, and further preserve and expand the habitat for the two pair of spotted owls.

Long-term biological and botanical research would be assured by retaining Butte Creek in its natural state, and through establishing a monitoring program. Old-growth values would also be retained, and no disturbance to spotted owls would occur by eliminating livestock grazing, mineral material sales, and off-highway vehicle use.

## No Action Alternative

The NO ACTION ALTERNATIVE formally designates the 360 acres in the candidate old-growth reserve in the Butte Creek block as a Research Natural Area/Area of Critical Environmental Concern, and removes 1,200 acres from the timber production base. This offers protection to the four pair of spotted owls and the existing old-growth values. However, it does not allow for establishing replacement stands of old-growth timber.

Long-term biological and botanical research would be assured by retaining the area in its natural state, and through establishing a monitoring program. Old-growth values would also be retained, and no disturbance to spotted owls would occur by eliminating livestock grazing, mineral material sales and off-highway vehicle use.

## Administrative Adjustments Alternative

The ADMINISTRATIVE ADJUSTMENTS ALTERNATIVE would be the most detrimental to old-growth values. This alternative proposes to dispose of all Bureau lands in order to meet some of the in-lieu entitlement due to the State of California, and to improve manageability in areas of other Bureau high visibility programs. The existing 360 acres of old-growth forest would be lost as it is expected the new landowner would harvest the timber for its market value. If Bureau lands were acquired by the State Lands Commission towards settlement of the 52,000-acre entitlement remaining to the State under their statehood grant, no lands would be acquired by the Bureau. As stated previously, this is not an exchange. In all probability, the State would offer the standing timber for sale, resulting in displacement of the four pair of spotted owls. This displacement would probably be to the nearby Forest Service or State Parks lands.



If some of the Bureau lands are exchanged with private timber owners, the Bureau would acquire an equal value of land elsewhere. It is assumed these acquired lands would not have standing commercial timber on them, much less old-growth trees. In this case, such land exchanges would result in displacement of the four pair of spotted owls, probably to the nearby Forest Service or State Parks lands, and a minor loss of old-growth values.

#### Impact on Indemnity Selection, Land Tenure, and Manageability of Scattered Tracts

Enhancement of Natural Values (Preferred) Alternative, Timber Production Alternative, Natural History Alternative, and No Action Alternative

None of the public lands within the management area will be available for disposal under the ENHANCEMENT OF NATURAL VALUES (PREFERRED), the TIMBER PRODUCTION, the NATURAL HISTORY, nor the NO ACTION ALTERNATIVES. As a result, nothing will be done to satisfy the State's indemnity entitlements. This area is one of the highest priorities on the State Lands Commission's (SLC) interest list and a reasonable area for long-term timber management by the Commission.

This is also a reasonable area to consolidate land for long-term Federal timber management as proposed in the NO ACTION and the TIMBER PRODUCTION ALTERNATIVES because of the high site quality and surrounding land uses. It is also very reasonable and appropriate to consider consolidation for purposes of enhancing spotted owl habitat and other old-growth forest characteristics. However, this land is not in an area of extensive BLM presence or administrative influence which means fairly high administrative costs and manageability problems inherent in small scattered blocks.

#### Administrative Adjustments Alternative

Under the ADMINISTRATIVE ADJUSTMENTS ALTERNATIVE, all 2,500 acres of public land within the Butte Creek management area would be available for disposal. Because of the high-site quality and surrounding land uses, this is a reasonable area for long-term timber management by SLC. However, it is not an area of extensive SLC presence or administrative influence. Nevertheless, the alternative could help satisfy the State's indemnity entitlements.

The ADMINISTRATIVE ADJUSTMENTS ALTERNATIVE also allows disposal for the purpose of acquiring Federal lands elsewhere. The land is appropriate for King Range acquisitions in Humboldt County, and could be used to consolidate Federal lands and resources in areas less remote from BLM administrative influence, including acquiring high priority lands in other BLM districts (at a favorable ratio of acres required to acres disposed due to the economic value of the standing timber), thereby improving manageability of these lands.



## KING RANGE VICINITY MANAGEMENT AREA

### Impact on Indemnity Selection, Land Tenure, and Manageability of Scattered Tracts

#### Enhancement of Natural Values Alternative

Under the ENHANCEMENT OF NATURAL VALUES (PREFERRED) ALTERNATIVE, 3,740 acres within the management area will be retained and efforts will be made to consolidate resources between the Mattole River and the Pacific Ocean, both inside and outside of the King Range National Conservation Area. This will improve administrative efficiencies significantly. The State Lands Commission has not expressed any interest in these tracts so there is no impact to indemnity selection. Approximately 160 acres of public land within the boundaries of the Sinkyone Wilderness State Park will be available for disposal for park purposes, thereby benefiting the management of the park.

#### No Action Alternative

The impacts to State indemnity selections and manageability under the NO ACTION ALTERNATIVE would be the same as those for the ENHANCEMENT OF NATURAL VALUES ALTERNATIVE.

## RED MOUNTAIN MANAGEMENT AREA

### Impact on the Availability of Timber to the Market and the Viability of the Timber Management Program

#### Enhancement of Natural Values (Preferred) Alternative

Under the ENHANCEMENT OF NATURAL VALUES (PREFERRED) ALTERNATIVE 700 acres of suitable commercial forest land will be removed from the timber production base as a result of the implementation of resource protection measures. This will reduce the amount of timber available to the market by approximately 14 MMBF. However, the loss will neither significantly impact the local economy nor have a negative impact on the area's timber program. The remaining 16,000 acres of the timber production base will be harvested at an annual rate of 1.5 MMBF per year. In addition, 3,500 acres of high-site, well-stocked CFL will be acquired. This acquisition coupled with the tree plantings, precommercial thinning and brush and hardwood controls and timber easement acquisitions proposed under this alternative could increase the commercial timber to market nearly five-fold--from 91 MMBF to 450 MMBF. Currently, however, the economic viability of the area is considered marginal because of the standing volume, timber stand characteristics, and lack of access to several parcels.

#### No Action Alternative

The impacts to timber unavailability and long-term timber management under the NO ACTION ALTERNATIVE are the same as those for the ENHANCEMENT OF NATURAL VALUES ALTERNATIVE--the PREFERRED ALTERNATIVE.



## Administrative Adjustments Alternative

With the exception of 12,700 acres of public lands in the Red Mountain and Northern California Range Preserve (NCCRP) ACEC, the Wild and Scenic River corridors, and the Charlton Creek and Bell Spring Creek watersheds, all public lands within the Red Mountain management area would be disposed under the ADMINISTRATIVE ADJUSTMENTS ALTERNATIVE. About 16,000 acres of the area's 16,700 acres of available commercial forest land are on the lands slated for disposal. As these lands would likely be acquired by the State Lands Commission, and later harvested, this would not affect the availability of timber to the marketplace. It would, however, adversely affect the Resource Area's timber management program.

### Impact on Spotted Owls and Other Old-Growth Forest Values

#### Enhancement of Natural Values (Preferred) Alternative

Under the ENHANCEMENT OF NATURAL VALUES (PREFERRED) ALTERNATIVE 700 acres of suitable commercial forest land in the NCCRP, the Cedar Creek portion of the Red Mountain ACEC, and along the South Fork of the Eel River will be removed from timber production; the remaining 16,000 acres will be harvested. As a result, 1,910 acres of candidate old-growth reserve will be protected and 800 acres (Jewett Rock) will be lost. This will provide habitat for the one pair of spotted owls recently sighted in the Cedar Creek area and two pair in the Charlton Creek/White Slide area. About 3,500 acres of land in the vicinity of Charlton Creek and Bell Springs Creek watersheds and the South Fork of the Eel River will also be acquired which will further benefit old-growth values. The exclusion of motorized vehicles in the more sensitive portions of the management area as well as the proposed monitoring efforts will also benefit these values. Dispersed, unstructured recreation will still be permitted but will have no significant adverse impact on the area's spotted owls nor old-growth values.

Timber production will be permitted on the remaining 22,100 acres of the management area. Although no spotted owls have been recently sighted on these lands, a 300-acre set-aside is proposed under this alternative to protect any owls that may be sighted. In addition, lands within the area will be monitored periodically for the presence of additional owls.

#### No Action Alternative

Under the NO ACTION ALTERNATIVE, the impacts to spotted owls and other old-growth forest values would be essentially the same as those for the ENHANCEMENT OF NATURAL VALUES ALTERNATIVE. However, all 2,710 acres of candidate old-growth reserve--including Jewett Rock--would be preserved.

#### Administrative Adjustments Alternative

Although 22,100 acres would be disposed under the ADMINISTRATIVE ADJUSTMENTS ALTERNATIVE, considerable protection would be afforded old-growth forest values on 1,100 acres in the Cedar Creek and Charlton Creek/White Slide reserves, in the NCCRP, and within the Wild and Scenic River corridors. These lands would be retained and managed to protect and enhance the old-growth forest values on them including the three pair of



spotted owls. Old-growth components on those lands slated for disposal (including 800 acres in Jewett Rock), however, would be lost as the Timber Production Capability Classification (TPCC) withdrawals for fragile sites and the silvicultural prescriptions for managed old-growth currently practiced and in-place would be removed. None of the lands proposed for acquisition under either of the other alternatives would be acquired further diminishing the area's old-growth values. Neither of these actions, however, would significantly affect the preservation of representative samples of old-growth forest ecosystems, or any specific value (such as spotted owl).

#### Impact on Indemnity Selection, Land Tenure, and Manageability of Scattered Tracts

##### Enhancement of Natural Values (Preferred) Alternative

Under the ENHANCEMENT OF NATURAL VALUES (PREFERRED) ALTERNATIVE 3,000 acres will be available for disposal and could be used to help satisfy the State's indemnity entitlements. This land is on the State Lands Commission's interest list, although it is a lower priority than the Butte Creek management area.

The remainder of the area will be retained and managed for timber production and the protection and enhancement of natural resource values. This is a reasonable area to consolidate land for long-term Federal management of these resources. There are several high-site timber stands in the area, legal and physical access exists, and the area is large and has a diverse suite of resources and natural values. In addition, there is a significant BLM administrative presence in the vicinity and 2,800 acres of land have already been acquired. To this end, 3,500 acres of land will be acquired within the management area for timber production. About 2,600 acres will be acquired to protect peregrine falcon nesting sites, and 900 acres will be acquired to protect riparian values. These acquisitions will enhance the manageability of the area and area's natural resources.

##### No Action Alternative

Under the NO ACTION ALTERNATIVE, 2,000 acres would be available for disposal and could be used to help satisfy the State's indemnity entitlement. Aside from this difference, the actions proposed under this alternative are the same as those for the ENHANCEMENT OF NATURAL VALUES. The impacts to indemnity selection, land tenure, and manageability would, therefore, be the same.

##### Administrative Adjustments Alternative

The ADMINISTRATIVE ADJUSTMENTS ALTERNATIVE would benefit the State in helping satisfy the State's indemnity entitlements. Under this alternative, 22,100 acres of land encompassing 16,000 acres of commercial forest land are proposed for disposal. Because of the proximity of these lands to those the State manages in the Covelo area, this is a reasonable area for long-term timber management by the State Lands Commission.



This alternative also allows disposal for the purpose of acquiring Federal lands and resources elsewhere. The land is appropriate for King Range acquisitions in Humboldt County, and could be used to consolidate Federal lands and resources in areas less remote from BLM administrative influence, including acquiring high priority lands in other BLM districts (at a favorable ratio of acres acquired to acres disposed due to the economic value of the standing timber), thereby enhancing the manageability of the Federal lands.

#### COVELO VICINITY MANAGEMENT AREA

##### Impact on the Availability of Timber to the Market and the Viability of the Timber Management Program

###### Administrative Adjustments (Preferred) Alternative

All public lands within the Covelo Vicinity Management Area will be disposed under the ADMINISTRATIVE ADJUSTMENTS (PREFERRED) ALTERNATIVE adversely impacting the Resource Area's timber management program. However, all 9,400 acres of available commercial forest land will be kept in timber production pending disposal, providing about 1.3 MMBF to the market annually.

###### No Action Alternative

Under the NO ACTION ALTERNATIVE, public lands within the management area would be retained. An average of 1.1 MMBF would be harvested annually from the 8,500 acres of available commercial forest lands. While this would not significantly benefit the local economy, it would have a long-term, positive impact on the area's timber resources and the availability of timber to the market. Tree plantings, brush and hardwood release, precommercial thinning, and other proposed forest improvements would also benefit the area's timber resources, increasing the potential commercial timber to market from 70 MMBF to 220 MMBF.

##### Impact on Spotted Owls and Other Old-Growth Forest Values

###### Administrative Adjustments (Preferred) Alternative

All public lands within the management area will be disposed under the ADMINISTRATIVE ADJUSTMENTS (PREFERRED) ALTERNATIVE including sensitive areas such as the Big Butte portion of the Yolla Bolly-Middle Eel Wilderness, the Eden Valley and Thatcher Ridge WSAs, Eden Creek, Little Darby, Hulls Creek, and portions of the Wild and Scenic River system. Most of these areas are contiguous or near National Forest lands (the Mendocino and Six Rivers National Forests) and could be transferred to the Forest Service under this alternative. As a result, the spotted owls and other old-growth forest values found in these areas would continue to be protected and enhanced through consolidation. The remaining 21,500 acres of public land would be available for in-lieu selections, exchanges, etc. As there are no significant old-growth forest values on these parcels, their disposal would only minimally affect old-growth forest values.



## No Action Alternative

Under the NO ACTION ALTERNATIVE, public lands within the management area would be retained and timber harvests would be conducted in the area's commercial forest lands. However, streamside buffers, Little Darby, Hulls Creek, Willis Ridge, and Eden Creek would be removed from the timber production base, thereby protecting the spotted owls and old-growth forest values found on these lands. Sensitive plant and animal species on the remainder of the management area would be considered and protected according to the BLM California Sensitive Species Policy (see Appendices 2-3 and 2-4).

Little Darby, Hulls Creek, Willis Ridge and Eden Creek would also be closed to motorized vehicles eliminating the noise and surface disturbance associated with this use and benefiting old-growth wildlife values in these areas. Dispersed, unstructured recreation would still be permitted, but would have no adverse impacts. Eden Creek would be designated an RNA/ACEC and 640 acres of private inholdings would be acquired benefiting the old-growth values found within the area.

### Impact on Indemnity Selection, Land Tenure, and Manageability of Scattered Tracts

## Administrative Adjustments (Preferred) Alternative

All public land within the management area will be disposed under the ADMINISTRATIVE ADJUSTMENTS (PREFERRED) ALTERNATIVE. Approximately 45,000 acres of the area are contiguous to National Forest lands (the Mendocino and Six Rivers National Forests) and will be transferred to the Forest Service. The remaining 21,500 acres will be available for in-lieu selections and could help satisfy the State's remaining entitlement. However, no tracts within the management area are on the State Lands Commission's interest list and it is doubtful the State will revise the list to acquire any of the tracts because of their poor economic value. If the State does not select these tracts, they will be exchanged with private landowners to acquire Federal lands elsewhere and consolidate Federal land ownership and benefit manageability.

## No Action Alternative

The NO ACTION ALTERNATIVE would provide nothing to help satisfy the State's indemnity entitlements. However, no tracts within the area are on the State Lands Commission's interest list. No impacts to the State's indemnity selection program are, therefore, anticipated. While it is reasonable to consolidate land for long-term Federal management as proposed in this alternative, the efficiencies of BLM management are low when compared to possible efficiencies that could be recognized by transferring these lands to the Forest Service which has a significant administrative presence in the Covelo area.



## SCATTERED TRACTS MANAGEMENT AREA

### Impact on the Availability of Timber to the Market and the Viability of the Timber Management Program

#### Administrative Adjustments (Preferred) Alternative

Under the ADMINISTRATIVE ADJUSTMENTS (PREFERRED) ALTERNATIVE, 7,700 acres of land will be disposed. These lands contain the majority of the commercial forest lands found within the management area--almost 6,200 acres with an estimated 108 MMBF of timber. To make these lands more attractive to potential selectors, the CFL will be removed from the timber production base eliminating the 108 MMBF of timber from the market over the short term. In all probability, however, these lands will be acquired by surrounding landowners, whether private parties or timber companies, and the timber made available to the market. While this will not significantly impact the local economy, it will have a minor, long-term impact on the timber management program. Approximately 5,000 acres in the Eagle Peak/Greenough Ridge areas and The Cedars will be retained and managed by the Bureau, but will not affect the area's timber program or the availability of timber to the market.

#### Enhancement of Natural Values Alternative

The ENHANCEMENT OF NATURAL VALUES ALTERNATIVE formally designates three areas (roughly 6,000 acres) as Resource Natural Areas (RNAs)/Areas of Critical Environmental Concern (ACEC)--Iaqua Buttes, Eagle Peak/Greenough Ridge, and The Cedars. Under this alternative, all commercial forest lands within these areas would be removed from the timber production base to protect old-growth forest characteristics and sensitive plant and animal habitat. As a result, 14 MMBF of standing timber, valued at \$1.4 million would be lost to the market. The remaining 6,700 acres of the management area would be disposed. Commercial forest lands on these parcels would also be removed from the timber production base to make those lands more attractive to potential selectors eliminating 94 MMBF timber from the market over the short-term. However, like the ADMINISTRATIVE ADJUSTMENTS ALTERNATIVE, these lands would probably be acquired by surrounding landowners and the 94 MMBF made available to the market. The impact to the local economy and timber management program would, therefore, be the same.

#### No Action Alternative

Under the NO ACTION ALTERNATIVE Gilham Butte and Iaqua Buttes would be designated Resource Natural Areas/Areas of Critical Environmental Concern. Approximately 2,600 acres of this land is suitable forest land and would be removed from the annual production base reducing the base from 6,200 acres to approximately 3,600 acres. However, of this 3,600 acres, 2,500 acres are small, scattered tracts and are uneconomical for BLM to harvest. As a result, only 1,100 acres of CFL would be available for harvest. Nearly 90 MMBF of standing volume (worth about \$9 million) would be removed from harvest--reducing annual available cut from 1.4 MMBF to .3 MMBF over the first rotation. While this would not significantly impact the local economy, it would have a significant, long-term effect on the area's timber resources and the availability of timber to the market.



## Impact on Spotted Owls and Other Old-Growth Forest Values

### Administrative Adjustments (Preferred) Alternative

Under the ADMINISTRATIVE ADJUSTMENTS (PREFERRED) ALTERNATIVE, 7,700 acres of the management area will be disposed. TPCC withdrawals and managed old-growth silvicultural prescriptions currently in place will also be removed. As a result, some components of old-growth forests will be lost as existing timber stands are harvested. Existing old-growth reserves at Gilham Butte (1,320 acres), Iaqua Buttes (510 acres), and Big Bend (280 acres) will also be lost and the breeding pair of spotted owls in Iaqua Buttes and the pair of spotted owls in Gilham Butte will be displaced. Neither Gilham Butte, Big Bend, nor the majority of lands identified for disposal, however, have been found to possess significant old-growth habitat or values.

Both the Eagle Peak/Greenough Ridge area and The Cedars area will be retained under this alternative. Eagle Peak and Greenough Ridge are near known peregrine falcon nesting sites; this retention will protect and serve to enhance the area's peregrine falcon population. Two BLM sensitive plant species (two subspecies of Streptanthus morrisonii) are limited to The Cedars and will be protected under this alternative. Both areas will also be closed to ORV use, eliminating the noise and surface disturbance associated with this use and benefiting the sensitive plant and animal species found in these areas.

### Enhancement of Natural Values Alternative

Like the ADMINISTRATIVE ADJUSTMENTS ALTERNATIVE, both the Eagle Peak/Greenough Ridge area and The Cedars will be retained under the ENHANCEMENT OF NATURAL VALUES ALTERNATIVE to protect the sensitive plant and animal species found on these parcels. In addition to these lands, Iaqua Buttes would also be retained to protect the area's old-growth forest characteristics including the breeding pair of spotted owls found within the area. These areas would also be designated Research Natural Areas/Areas of Critical Environmental Concern (RNAs/ACECs) and all suitable commercial forest land would be withdrawn from the timber production base. As a result of these actions, the old-growth characteristics and the sensitive plants and animals found within these areas would be protected and enhanced over time. The acquisition of 1,000 acres of private land in and around these areas would also benefit these values, eliminating the possibility of conflicting uses and consolidating Federal ownership. These areas would also be closed to motorized vehicle use, eliminating the noise and surface disturbance associated with this use and also benefiting the area's old-growth characteristics and sensitive plants and animals.

Approximately 6,700 acres of the management area would be disposed and the timber on these lands harvested eliminating some components of old-growth forests. Existing old-growth reserves at Gilham Butte (1,320 acres) and Big Bend (280 acres) would also be lost. Neither of these stands nor any of the lands identified for disposal, however, have been found to possess significant old-growth habitat or values.



## No Action Alternative

Under the NO ACTION ALTERNATIVE, 10,000 acres would be retained including all areas within the Clear Lake Resource Area which are a part of Scattered Tracts Management Area. In addition to the area's designated for retention in the ENHANCEMENT OF NATURAL VALUES ALTERNATIVE, Gilham Butte would also be retained to protect the area's old-growth forest values. Gilham Butte and Iaqua Buttes (about 3,100 acres) would be designated RNAs/ACECs and all suitable commercial forest land would be withdrawn from the timber product base. As a result 1,320 acres of old-growth reserve at Gilham Butte and 510 acres at Iaqua Buttes would be protected. The remaining 3,100 acres of the management area's timber production base would be available for harvest.

Nearly 2,700 acres of the management area would be disposed including the 1,700 acres of commercial forest lands harvested eliminating some components of old-growth forests located on these lands. About 280 acres of existing old-growth reserve at Big Bend would also be lost but would not significantly impact the management area's old-growth forest values.

### Impact on Indemnity Selection, Land Tenure, and Manageability of Scattered Tracts

#### Administrative Adjustments (Preferred) Alternative

Under the ADMINISTRATIVE ADJUSTMENTS (PREFERRED) ALTERNATIVE, 7,700 acres of public land (3,700 acres of commercial forest land) within the management area would be available for disposal and could help satisfy the State's indemnity selections. Realistically, however, much of this land is of such poor economic value or presents such significant manageability problems as to be of no interest to the State Lands Commission. This lack of interest reflects the understanding of the management difficulties inherent in dealing with small tracts such as these and the nature of the remaining timber resources on these lands: Scattered timber stands, relatively low sites, and understocked stand condition.

The long-term result of this alternative will most likely be disposal, via exchange, of the better remaining lands to surrounding landowners to enhance their management.

#### Enhancement of Natural Values Alternative

The ENHANCEMENT OF NATURAL VALUES ALTERNATIVE would provide nothing to help satisfy the State's indemnity entitlement; no tracts identified for disposal are on the State Lands Commission's interest list. Approximately 1,000 acres of private land within the Eagle Peak/Greenough Ridge area, The Cedars, and Iaqua Buttes would be acquired to consolidate Federal ownership and would benefit the manageability of these areas.

#### No Action Alternative

Like the ENHANCEMENT OF NATURAL VALUES ALTERNATIVE, the NO ACTION ALTERNATIVE would provide nothing to help satisfy the State's indemnity entitlements. Only 2,700 acres would be disposed under the alternative and none



of these lands are on the State Lands Commission's interest list. Approximately 800 acres of private land around Gilham Butte would be acquired for recreational uses minimally benefiting the manageability of this area.

## CUMULATIVE IMPACTS

This section summarizes and compares the cumulative impacts projected to occur as a result of implementing any of the alternatives described in Chapter 2. It focuses on the entire planning area and was developed by aggregating the impacts described in the preceding section, management area-by-management area, for each alternative.

Seven alternatives, including the PREFERRED, are analyzed. Impacts are presented by issue and are defined in terms of what is likely to happen to various resources or land uses during the life of the plan. Impacts that are not discussed here either have no significance or would not occur.

### PREFERRED ALTERNATIVE

Under the PREFERRED ALTERNATIVE, 47,410 acres of public land within the planning area will be retained and managed for a number of uses and resources including timber management, recreation, and wildlife. Nearly 11,000 acres will be acquired to enhance or protect these resources. Over 60 percent of the planning area (77,360 acres) will be disposed to help satisfy the State of California indemnity selection entitlement and to consolidate Federal ownership. The majority of these lands will be transferred to the U.S.D.A.-Forest Service (45,000 acres).

#### Impact on Off-Road Vehicle (ORV) Recreation Use Levels--Samoa Peninsula

The PREFERRED ALTERNATIVE allows controlled ORV use on the Samoa Dunes portion of the Samoa Peninsula and limited use on the Manila Dunes portion. Current motorized recreation use on the Samoa Dunes is estimated at 8,000 visitor days per year. This use will benefit from the development of the 125-acre off-road vehicle park proposed for the Samoa Dunes, increasing it to about 17,000 visitor days per year. The closure of 175 acres of the Samoa Dunes to motorized vehicle use will adversely affect off-road vehicle recreation opportunities minimally. However, the loss of these opportunities will be offset by the recreational development already discussed.

At Manila Dunes, current ORV use is estimated to be 3,000 visitor days annually. By confining vehicles to a beach corridor, motorized recreation opportunities will be adversely affected because of the reduced amount of land open to ORV use. The number of riders at Manila Dunes will decrease from 3,000 visitor days per year to about 500 visitor days. As a result, a greater demand for increased ORV use of the Samoa Dunes will occur.



## Impact on Botanical Values (Including Wetlands) and Passive Recreation-- Samoa Peninsula

The PREFERRED ALTERNATIVE provides for the protection of wetlands and Menzie's wallflower and the enhancement of passive types of recreation. Under this alternative, 175 acres of land in the Samoa Dunes area will be closed to motorized vehicles. Motorized vehicles will be limited to a designated corridor in the Manila Dunes, thereby reducing the noise and surface disturbance associated with this use. This will benefit the area's botanical values and enhance nonmotorized recreation uses such as hiking, camping, sightseeing, etc. Designation of the Manila Dunes as an Outstanding Natural Area/Area of Critical Environmental Concern (ONA/ACEC) will focus greater attention on the area's natural values and serve to further enhance these values.

The ORV recreational facility planned for the Samoa Dunes and the acquisition of approximately 40 acres near Manila Dunes (to improve vehicle access) will increase the amount of ORV use in the management area, but fencing of sensitive habitat, increasing patrols, more field monitoring, and posting boundaries will minimize any adverse impacts.

## Impact on the Availability of Timber to the Market and the Viability of the Timber Management Program

Under the PREFERRED ALTERNATIVE, 19,000 acres of the planning area's 37,500 acres of commercial forest land (CFL) will be managed for timber production. Approximately 2,800 acres of the 18,500 acres removed from the timber production base will be withdrawn to protect or enhance natural resource values. The remainder (15,700 acres) is on public land slated for disposal. However, 9,400 acres of CFL to be disposed in the Covelo Vicinity will be kept in production; 6,200 acres in the Scattered Tracts management area will be temporarily removed from production, but will become available for production once the lands are disposed. As a result of these actions, 67 MMBF of timber in the Red Mountain and Butte Creek management areas will be foregone, reducing the planning area's standing volume to 320 MMBF and the annual available cut from 5.75 MMBF per year to 4.7 MMBF. Approximately 197 MMBF in the Covelo Vicinity and Scattered Tracts management areas will be made available to the market but removed from the Resource Area's long-term timber management program. While this will not significantly affect the local economy, it will have an adverse impact on the area's timber program.

Approximately 5,300 acres of high-site, well-stocked CFL will be acquired under this alternative. The acquisition of this land, timber stand improvements outlined in SYU 13, and the acquisition of timber access will significantly benefit both the availability of timber to the market and the timber management program over the long-term (75 to 110 years), increasing the potential commercial timber to market from 320 MMBF to nearly 800 MMBF and the annual available cut from 4.7 MMBF to 12.8 MMBF per year.



### Impact on Spotted Owls and Other Old-Growth Values

Under the PREFERRED ALTERNATIVE 3,470 acres of the planning area's 7,280 acres of old-growth reserve will be preserved; 3,810 acres will be lost as a result of timber harvests and land disposals. As a result, two of the area's five pair of spotted owls, one breeding pair of the area's six breeding pair of spotted owls, and one of the area's three individual owls will be displaced. Approximately 2,580 acres (primarily in the Butte Creek management area) will be designated RNA/ACECs and 5,600 acres will be acquired protecting the area's more significant old-growth values and enhancing these values. The exclusion/ limitation of motorized vehicles in the more sensitive portions of the planning area, livestock grazing and material sales restrictions, as well as the monitoring efforts proposed under this alternative will also benefit these values.

### Impact on Indemnity Selection, Land Tenure, and Manageability of Scattered Tracts

Over 60 percent of the planning area (77,360 acres) will be disposed under the PREFERRED ALTERNATIVE to help satisfy the State's indemnity selection entitlement and to consolidate Federal land ownership. The majority of these lands (45,000 acres in the Covelo Vicinity management area) will be transferred to the U.S.D.A.--Forest Service. Although the other 32,360 acres will be available for indemnity selection, only 3,000 acres in the Red Mountain management area are on the State Lands Commission's interest list. Because of the poor economic value of the remaining 29,360 acres, and significant manageability problem they present, it is doubtful the State will revise the list to acquire these tracts, doing little to satisfy the State's indemnity entitlement. Instead, these lands will probably be exchanged with private landowners to acquire Federal lands elsewhere and consolidate Federal land ownership and benefit manageability. As a result of these exchanges, the transfer of 45,000 acres of land to the Forest Service and the acquisition of 11,942 acres, the manageability of the area's resources will be significantly enhanced.

### Adverse Impacts Which Cannot Be Avoided

Surface disturbance and human encroachment is inevitable with the disposal of public lands under this alternative and timber production on the remaining 19,000 acres of the planning area's commercial forest lands. Surface disturbance results in wildlife forage and cover losses which reduces habitat carrying capacity. Human encroachment will displace wildlife to adjacent nonimpacted areas. The severity of impacts depends on the quantity and type of development and the success of mitigation efforts such as those outlined in SYU 13. Under the PREFERRED ALTERNATIVE the actions outlined in Chapter 2 will adversely impact 3,810 acres of the area's old-growth reserves and the old-growth values found within these reserves. These values include two of the area's five pair of spotted owls, one breeding pair of the area's six breeding pair of spotted owls, and one of the area's three individual owls.



## Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity

Under the PREFERRED ALTERNATIVE, current timber management practices on 18,500 acres of the area's commercial forest lands will be precluded, affecting 264 MMBF of standing volume. Approximately 2,800 acres of this total will be withdrawn to protect or enhance natural resource values eliminating 67 MMBF over the long term. The remaining 197 MMBF (in the Covelo Vicinity and Scattered Tracts management areas) will be made available to the market once these lands are disposed, but will be removed from the timber production base. Approximately 5,300 acres of high-site, well-stocked CFL will be acquired under this alternative. The acquisition of this land, timber stand improvements outlined in SYU 13, and the acquisition of timber access will significantly benefit both the availability of timber to the market and the timber management program over the long term increasing the potential commercial timber to market from 320 MMBF to nearly 800 MMBF and the annual allowable cut from 4.7 MMBF to 12.8 MMBF per year.

### Irreversible and Irretrievable Commitment of Resources

Irreversible and irretrievable commitments of resources occur when a wide range of future actions are foreclosed. Under the PREFERRED ALTERNATIVE, 3,810 acres of the area's old-growth reserves will be irretrievably lost as will the old-growth values found within these reserves. These losses will not be irreversible, however, due in part to reclamation efforts throughout the remainder of the planning area and the acquisition of nearly 6,000 acres of land to protect and enhance old-growth forest and wildlife values. The trees harvested under this alternative will also be an irretrievable commitment of resources, but it will not be irreversible. About 4.7 MMBF of timber will be cut and utilized per year. Commercial forest land acquisition, timber stand improvements, and the acquisition of timber access will increase the annual allowable cut from 4.7 MMBF per year to nearly 12.8 MMBF over the long term.

### NO ACTION ALTERNATIVE

Under the NO ACTION ALTERNATIVE, 6,200 acres of public land within the planning area would be disposed. Approximately 12,382 acres would be acquired; 11,140 of these acres would be acquired to enhance the area's timber and wildlife resources. The remainder of the area would be retained and managed for a number of uses and resources including timber management, recreation, and wildlife.

### Impact on Off-Road Vehicle (ORV) Recreation Use Levels--Samoa Peninsula

The NO ACTION ALTERNATIVE allows controlled ORV use on the Samoa Dunes portion and limited use on Manila Dunes. Current motorized recreation use on Samoa Dunes is estimated at 8,000 visitor days per year. This use would benefit from the development of the 125-acre off-road vehicle park proposed for Samoa Dunes increasing it to about 17,000 visitor days per year. The closure of 175 acres of the Samoa Dunes to motorized vehicle



use would adversely affect off-road vehicle recreation opportunities. The loss of these opportunities, however, would be offset by the recreational developments already discussed.

At Manila Dunes, current ORV use is estimated to be 3,000 visitor days annually. By confining vehicles to a beach corridor, motorized recreation opportunities would be adversely affected because of the reduced amount of land open to ORV use. The number of riders at Manila Dunes would decrease from 3,000 to about 500 visitors per year. As a result, a greater demand for and increased ORV use of the Samoa Dunes would occur.

#### Impact on Botanical Values (Including Wetlands) and Passive Recreation-- Samoa Peninsula

The NO ACTION ALTERNATIVE provides for the protection of wetlands and Menzie's wallflower and the enhancement of passive types of recreation. Under this alternative, 175 acres of land in the Samoa Dunes area would be closed to motorized vehicles. Motorized vehicles would be limited to a designated corridor in the Manila Dunes, thereby reducing the noise and surface disturbance associated with this use. This would benefit the area's botanical values and enhance nonmotorized recreation uses such as hiking, camping, sightseeing, etc. Designation of the Manila Dunes as an Outstanding Natural Area/Area of Critical Environmental Concern (ONA/ACEC) would focus greater attention on the area's natural values and serve to further enhance these values.

The ORV recreational facility planned for the Samoa Dunes and the acquisition of approximately 40 acres near Manila Dunes (to improve vehicle access) would increase the amount of ORV use in the management area, but fencing of sensitive habitat, increasing patrols, more field monitoring and posting boundaries would minimize any adverse impacts.

#### Impact on the Availability of Timber to the Market and the Viability of the Timber Management Program

Under the NO ACTION ALTERNATIVE, 30,900 acres of the planning area's 37,500 acres of CFL would be managed for timber production. The 6,600 acres of CFL removed from the timber production base to protect and enhance old-growth values would reduce the amount of timber available to the market from 387 MMBF to 216 MMBF and the annual available cut from 5.75 MMBF per year to 3.55 MMBF. Four hundred acres of CFL in the Lacks Creek management area containing 6 MMBF would be disposed under this alternative, but would remain available for timber production. There would be no noticeable effect to the local economy as a result of these actions, nor would the area's timber management process be significantly impacted.

Approximately 6,200 acres of high-site, well-stocked CFL would be acquired under this alternative. The acquisition of this land, timber stand improvements outlined in SYU 13, and the acquisition of timber access would significantly benefit both the availability of timber to the market and the timber management program over the long term (75 to 110 years), increasing the potential commercial timber to market from 216 MMBF to almost 890 MMBF and the annual available cut from 3.55 MMBF to 14 MMBF per year.



### Impact on Spotted Owls and Other Old-Growth Values

Under the NO ACTION ALTERNATIVE, 7,000 acres of the planning area's 7,280 acres of old-growth reserve would be preserved; 280 acres would be lost as a result of land disposals in the Scattered Tracts management area. None of the planning area's population of spotted owls would be displaced.

Approximately 10,000 acres throughout the planning area would be designated RNA/ACECs and nearly 5,000 acres would be acquired protecting and enhancing the area's old-growth forest values. The exclusion/limitation of motorized vehicles in the more sensitive portions of the planning area, livestock grazing and material sales restrictions, and the monitoring efforts proposed under this alternative would serve to further protect and enhance these values.

### Impact on Indemnity Selection, Land Tenure, and Manageability of Scattered Tracts

Only four percent of the planning area (6,200 acres) would be available to help satisfy the State's indemnity selection entitlement and to consolidate Federal land ownership under the NO ACTION ALTERNATIVE. Of this amount, only half is on the State Lands Commission's interest list. The remainder is of such poor economic value that it is doubtful the State would acquire these lands, doing little to satisfy the State's indemnity entitlement. Instead, these lands would probably be exchanged with private landowners to acquire Federal land elsewhere. These land tenure adjustments, coupled with the acquisition of 12,382 acres for timber management, wildlife and riparian values would moderately enhance the manageability of the area's resources

### ENHANCEMENT OF NATURAL VALUES ALTERNATIVE

Under the ENHANCEMENT OF NATURAL VALUES ALTERNATIVE, 9,860 acres of public land within the planning area would be disposed. Roughly 20 percent of the current commercial forest lands would be removed from the timber production base to protect and enhance the area's old-growth forest values. These values would be further enhanced with the acquisition of 13,582 acres. The remainder of the planning area would be managed for multiple-use, including timber, recreation and wildlife management.

### Impact on Off-Road Vehicle (ORV) Recreation Use Levels--Samoa Peninsula

Impacts to ORV recreation use levels on the Samoa Dunes portion of the management area under the ENHANCEMENT OF NATURAL VALUES ALTERNATIVE would be essentially the same as those for the NO ACTION ALTERNATIVE--use would increase from 8,000 visitor days to nearly 17,000 visitor days as a result of developing the off-road vehicle park and greater demand to use this area due to the closure of motor vehicles use on private lands. On the Manila Dunes portion, however, ORV use would be prohibited over the entire area eliminating ORV recreation use opportunities altogether and the 3,000 visitor days of motorized recreational use currently estimated to occur.



### Impact on Botanical Values (Including Wetlands) and Passive Recreation-- Samoa Peninsula

The ENHANCEMENT OF NATURAL VALUES ALTERNATIVE would prohibit ORV use on the Manila Dunes portion of the management area, moderately benefiting the area's botanical values and passive recreation opportunities. The impact on these values and opportunities on the Samoa Dunes portion under this alternative would be the same as those for the NO ACTION ALTERNATIVE. The ORV park planned for the area would be developed and ORV use would double from 8,000 visitor days per year to 17,000 visitor days. However, any adverse impacts that might result from increased vehicular use would be minimized by fencing the 175 acres of sensitive plant habitat, increasing patrols, monitoring, and interpretive educational activities, and posting the boundaries of the project area.

### Impact on the Availability of Timber to the Market and the Viability of the Timber Management Program

Under the ENHANCEMENT OF NATURAL VALUES ALTERNATIVE, 30,000 acres of the planning area's 37,500 acres of commercial forest land would be managed for timber production. Approximately 7,400 acres of CFL would be removed from the timber production base to protect and enhance the area's old-growth forest values. As a result, the amount of timber available to the market would be reduced 132 MMBF--from 387 MMBF to 255 MMBF--and the annual available cut from 5.75 MMBF per year to 3.80 MMBF. There would be no noticeable effect on the local economy as a result of these actions, nor would the area's timber management program be significantly impacted.

Approximately 4,500 acres of high-site, well-stocked CFL would be acquired under this alternative. The acquisition of this land, timber stand improvements outlined in SYU 13, and the acquisition of timber access would significantly benefit both the availability of timber to the market and the timber management program over the long term (75 to 110 years), increasing the potential commercial timber to market from 255 MMBF to over 780 MMBF and the annual allowable cut from 3.8 MMBF per year to 12.5 MMBF.

### Impact on Spotted Owls and Other Old-Growth Values

Under the ENHANCEMENT OF NATURAL VALUES ALTERNATIVE, 4,880 acres of the area's old-growth reserve would be preserved; 2,400 acres in the Scattered Tracts management area would be lost as a result of land disposals. As a result only one pair of spotted owls in the planning area would be displaced. The remaining five pair of spotted owls, six breeding pair of owls, and the three individual owls found throughout the area would be protected.

Approximately 17,780 acres would be designated RNA/ACECs and 9,040 acres would be acquired protecting and moderately enhancing the area's old-growth forest values. As in the previously described alternatives, the exclusion/limitation of motorized vehicles in the more sensitive portions of the planning area, livestock grazing and material sales restrictions, and the monitoring efforts proposed under this alternative would serve to further protect and enhance these values.



### Impact on Indemnity Selection, Land Tenure Adjustment, and Manageability of Scattered Tracts

Roughly eight percent of the planning area (9,860 acres) would be available to help satisfy the State's indemnity selection entitlement and to consolidate Federal land ownership under the ENHANCEMENT OF NATURAL VALUES ALTERNATIVE. Of this amount, only one-third is on the State Lands Commission's interest list. The remainder, located primarily in the Scattered Tracts management area is of such poor economic value that it is doubtful the State would acquire these lands, doing little to satisfy the State's indemnity entitlement. Instead these lands would probably be exchanged with private landowners to acquire Federal lands elsewhere. These land tenure adjustments coupled with the acquisition of 13,582 acres would moderately enhance the manageability of the area's resources.

### ENHANCEMENT OF RECREATIONAL VALUES ALTERNATIVE

With the exception of impacts to the off-road vehicle recreation use levels, botanical values, and passive recreation, the impacts under the ENHANCEMENT OF RECREATIONAL VALUES ALTERNATIVE would be the same as those described under the NO ACTION ALTERNATIVE--6,200 acres of public land would be disposed, 12,382 acres would be acquired benefiting timber and wildlife resources, and the remainder of the area would be managed for multiple-use.

#### Impact on Off-Road Vehicle (ORV) Recreation Use Levels--Samoa Peninsula

The RECREATION ENHANCEMENT ALTERNATIVE is designed to actively promote ORV use on the two parcels of public land. Under this alternative, an off-road vehicle park would be developed on Samoa Dunes and approximately 40 acres of land near Manila Dunes would be acquired to improve vehicle as well as pedestrian access. As a result, ORV recreation use would significantly benefit, increasing the amount of ORV use on the Samoa Dunes from the 8,000 visitor days currently estimated to occur to nearly 17,000 visitor days and from 3,000 visitor days to nearly 5,000 visitor days on the Manila Dunes. Unauthorized vehicle use outside the management area is also likely to increase but would be restricted by posting boundaries and increasing patrols in the area. Unlike the NO ACTION ALTERNATIVE, the Manila Dunes would be opened to motorized vehicle use which would also benefit ORV recreational use.

#### Impact on Botanical Values (Including Wetlands) and Passive Recreation

Under the RECREATION ENHANCEMENT ALTERNATIVE, the Manila Dunes would be open to motorized vehicle use and approximately 40 acres would be acquired to improve vehicle access. As a result, the area's wetlands and Menzie's wallflower populations would be significantly impacted as would passive recreational opportunities. Increased patrols and more field monitoring of these resources would help diminish these impacts, but only minimally. Impacts to botanical values and passive recreation opportunities on the Samoa Dunes would be the same as those described in the NO ACTION AND ENHANCEMENT OF NATURAL VALUES ALTERNATIVES.



### Impact on the Availability of Timber in the Market and the Viability of the Timber Management Program

The impacts to the local economy and the planning area's timber management program would be the same as those described under the NO ACTION ALTERNATIVE.

### Impact on Spotted Owls and other Old-Growth Forest Values

The impact to the spotted owls and other old-growth values would be the same as those described under the NO ACTION ALTERNATIVE.

### Impact on Indemnity Selection, Land Tenure, and Manageability of Scattered Tracts

The impact to helping satisfy the State's indemnity selection entitlement and enhancing the manageability of the area's scattered tracts would be the same as those described under the NO ACTION ALTERNATIVE.

## TIMBER PRODUCTION ALTERNATIVE

Under the TIMBER PRODUCTION ALTERNATIVE, 5,800 acres of public land within the planning area would be disposed. Of this amount, 4,200 acres or three percent of the planning area, are commercial forest land and would be removed from the timber production base reducing timber production over the short term (10 to 15 years). The remainder would be managed for multiple-use diminishing the amount of old-growth reserve and old-growth values on these lands.

### Impact on Off-Road Vehicle (ORV) Recreation Use Levels--Samoa Peninsula

The impact on off-road vehicle recreation use levels would be the same as those described under the NO ACTION ALTERNATIVE.

### Impact on Botanical Values (Including Wetlands) and Passive Recreation

The impacts on botanical values, including wetlands, and passive recreation would be the same as those described under the NO ACTION ALTERNATIVE.

### Impact on the Availability of Timber to the Market and the Viability of the Timber Management Program

Under the TIMBER PRODUCTION ALTERNATIVE, 33,300 acres of the planning area's 37,500 acres of commercial forest land would be managed for timber production. Approximately 4,200 acres of CFL would be removed from the timber production base to protect and enhance the area's old-growth values. As a result, the amount of timber available to the market would be reduced 123 MMBF--from 387 MMBF to 264 MMBF--and the annual available cut from 5.75 MMBF per year to 4.25 MMBF. There would be no noticeable effect on the local economy as a result of these actions, nor would the area's timber management program be significantly impacted.



Approximately 6,200 acres of high-site, well-stocked CFL would be acquired under this alternative. The acquisition of this land, timber stand improvements outlined in SYU 13 and the acquisition of timber access would significantly benefit both the availability of timber to the market and the timber management program over the long term (75 to 110 years), increasing the commercial timber to market from 264 MMBF to 984 MMBF and the annual allowable cut from 4.25 MMBF per year to over 15.7 MMBF per year.

#### Impact on Spotted Owls and Other Old-Growth Values

Under the TIMBER PRODUCTION ALTERNATIVE, 5,740 acres of the area's old-growth reserve would be preserved; 1,540 acres of old-growth reserve in the Lacks Creek, Butte Creek, and Scattered Tracts management areas would be lost as a result of land disposal and timber management practices. As a result, four of the five breeding pair of spotted owls found within the planning area would be displaced; one pair of the five pair of spotted owls would be displaced; and one individual of the three individual spotted owls would be displaced. The remaining owls found throughout the area would be protected.

Approximately 7,880 acres would be designated RNA/ACECs and 4,940 acres would be acquired, protecting old-growth forest values and enhancing these values. The exclusion/limitation of motorized vehicles in the more sensitive portions of the planning area, livestock grazing and material sales restrictions, as well as monitoring efforts proposed under this alternative would also benefit these values.

#### Impact on Indemnity Selection, Land Tenure, and Manageability of Scattered Tracts

Only five percent of the planning area (5,800 acres) would be available to help satisfy the State's indemnity selection entitlement and to consolidate Federal land ownership under the TIMBER PRODUCTION ALTERNATIVE. Of this amount only half is on the State Lands Commission's interest list. The remainder is of such poor economic value that it is doubtful the State would acquire these lands, doing little to satisfy the State's indemnity entitlement. Instead, these lands would probably be exchanged with private landowners to acquire Federal lands elsewhere. These land tenure adjustments coupled with the acquisition of 12,382 acres would moderately enhance the manageability of the area's resources.

#### ADMINISTRATIVE ADJUSTMENT ALTERNATIVE

Under the ADMINISTRATIVE ADJUSTMENT ALTERNATIVE, 85 percent of the planning area would be available for disposal to help satisfy the State of California's indemnity selection entitlement and to consolidate Federal ownership. The remaining 20,470 acres would be retained and managed to protect and enhance wildlife and riparian values.

#### Impact on Off-Road Vehicle (ORV) Recreation Use Levels--Samoa Peninsula

The impacts on off-road vehicle recreation use levels would be the same as those described under the NO ACTION ALTERNATIVE.



### Impact on Botanical Values (Including Wetlands) and Passive Recreation

Impact on botanical values, including wetlands, and passive recreation would be the same as those described under the NO ACTION ALTERNATIVE.

### Impact on the Availability of Timber to the Market and the Viability of the Timber Management Program

Under the ADMINISTRATIVE ADJUSTMENT ALTERNATIVES, 36,800 acres of the 37,500 acres of commercial forest land would be disposed; however, the majority of these lands (30,600 acres) would be kept in the timber production base, pending disposal. Approximately 6,200 acres of CFL in the Scattered Tracts management area would be temporarily removed from the timber production base but would be made available to the market once the lands are disposed. As a result, 373 MMBF will be made available to the market. The remaining 700 acres of CFL would be removed from the timber production base as a result of resource protection measures, eliminating 14 MMBF of timber to the market. While these actions would have a moderate short-term benefit to the local economy, the Resource Area's timber management program would be eliminated.

### Impact on Spotted Owls and Other Old-Growth Values

Under the ADMINISTRATIVE ADJUSTMENT ALTERNATIVE, 5,070 acres of the planning area's 7,280 acres of old-growth reserve would be eliminated displacing the area's five breeding pair of spotted owls, two pair of spotted owls, and one individual owl. Approximately 1,910 acres of old-growth reserve in the Red Mountain management area and 300 acres in the Covelo Vicinity management area would be preserved protecting the old-growth values on these lands including one pair of spotted owls, three pair, and two individual owls.

### Impact on Indemnity Selection, Land Tenure, and Manageability of Scattered Tracts

Nearly 85 percent of the planning area (104,300 acres) would be disposed under the ADMINISTRATIVE ADJUSTMENTS ALTERNATIVE to help satisfy the State's indemnity selection entitlement and to consolidate Federal land ownership. A large portion of these lands (45,000 acres in the Covelo Vicinity management area) would be transferred to the U.S.D.A.-Forest Service. The remaining (59,300 acres) would be available for indemnity selection. Approximately 29,000 of these acres are in the State Lands Commission's interest list and would help satisfy the State's entitlement. The rest are of such poor economic value that it is doubtful the State would acquire these lands. Instead these lands would probably be exchanged with private landowners to acquire Federal lands elsewhere. These land tenure adjustments coupled with the acquisition of 1,200 acres in the King Range Vicinity and 42 acres on the Samoa Peninsula would significantly benefit the manageability of the Scattered Tracts of land throughout the area.



## NATURAL HISTORY ALTERNATIVE

Under the NATURAL HISTORY ALTERNATIVE, 6,200 acres of public land within the planning area would be disposed. Approximately 13,282 acres would be acquired to enhance the area's timber and wildlife resources. The remainder of the area would be retained and managed for a number of uses and resources including timber management, recreational use, and wildlife habitat management.

### Impact on Off-Road Vehicle (ORV) Recreation Use Levels--Samoa Peninsula

The impact on off-road vehicle recreation use levels would be the same as those described under the NO ACTION ALTERNATIVES.

### Impact on Botanical Values (Including Wetlands) and Passive Recreation

Impact on botanical values, including wetlands, and passive recreation would be the same as those described under the NO ACTION ALTERNATIVE.

### Impact on the Availability of Timber to the Market and the Viability of the Timber Management Program

Under the NATURAL HISTORY ALTERNATIVE, 31,165 acres of the planning area's 37,500 acres of CFL would be managed for timber production. The 6,335 acres of CFL removed from the timber production base to protect and enhance old-growth values would reduce the amount of timber available to the market from 387 MMBF to 217 MMBF and the annual available cut from 5.75 MMBF per year to 3.5 MMBF per year. There would be no noticeable effect to the local economy as a result of these actions, nor would the area's timber management program be significantly impacted.

Approximately 6,200 acres of high-site, well-stocked CFL would be acquired under this alternative. The acquisition of this land coupled with timber stand improvements outlined in SYU 13 and the acquisition of timber access would significantly benefit both the availability of timber to the market and the timber management program over the long term (75 to 110 years), increasing the potential commercial timber to market from 217 MMBF to almost 890 MMBF and the annual available cut from 3.5 MMBF per year to 14 MMBF per year.

### Impact on Spotted Owls and Other Old-Growth Values

Under the NATURAL HISTORY ALTERNATIVE, 7,000 acres of the planning area's old-growth reserve would be preserved; 280 acres would be lost as a result of land disposals in the Scattered Tracts management area. To this end, two of the six breeding spotted owls found within the planning area would be displaced. The remaining population of spotted owls would be protected. These owls and other old-growth forest values would be enhanced with the designation of 10,915 acres as RNA/ACECs and the acquisition of 5,840 acres for old-growth, wildlife and riparian values. The exclusion/limitation of motorized vehicles in the more sensitive portions of the planning area, livestock grazing and material sales restrictions, and the monitoring efforts proposed under this alternative would serve to further enhance these values.



### Impact on Indemnity Selection, Land Tenure and Manageability of Scattered Tracts

Only four percent of the planning area (5,100 acres) would be available to help satisfy the State's indemnity selection entitlement and to consolidate Federal land ownership under the NATURAL HISTORY ALTERNATIVE. Of this amount, only half is on the State Lands Commission's interest list. The remainder is of such poor economic value that it is doubtful the State would acquire these lands, doing little to satisfy the State's indemnity entitlement. Instead, these lands would probably be exchanged with private landowners to acquire Federal lands elsewhere. These land tenure adjustments, coupled with the acquisition of 13,282 acres would moderately enhance the manageability of the area's resources.

## CHAPTER 5

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# CONSULTATION & COORDINATION





## CHAPTER 5

### CONSULTATION AND COORDINATION

#### OVERVIEW OF THE PROCESS

A resource management plan is comprehensive, that is, the plan itself discusses to a practical extent all relevant activities and resources within the study area. However, only for identified critical issues are alternatives developed for thorough analysis in the environmental impact statement.

The Council on Environmental Quality regulations (40 CFR 1501.7) and BLM's planning regulations (43 CFR 1610.4-1) require an early and open process (scoping) for determining these significant issues.

A Notice of Intent to prepare this plan was published in the Federal Register on January 29, 1986 (51 FR 3663) and a Notice of Availability of draft planning criteria was published on March 27, 1986 (51 FR 10578).

On March 21, 1986, about 200 scoping letters were sent to publics with an interest in Bureau planning, and over 1,000 planning update flyers were sent to the entire district mailing list. In addition, BLM resource specialists contacted other agencies and individuals for information and expression of concerns. A meeting was held January 15, 1986, with representatives of the State Lands Commission; on April 28, 1986, a meeting was held in Arcata with eight local landowners and members of environmental groups.

Fifty-eight written responses were reviewed during the scoping process. About 20 letters from surrounding landowners depicted the natural values of Gilham Butte, and requested that the area be left alone; 16 letters raised concerns about spotted owls and/or old-growth, although several specified redwood; the California Native Plant Society and a few others were primarily concerned with protecting the Menzie's wallflower on Samoa Peninsula; the Cahto Coalition reiterated its request for wilderness designation for the Elkhorn Ridge, Brush Mountain, and Cahto Peak areas; timber companies and The Western Timber Association were concerned that the plight of the spotted owl was greatly exaggerated and unduly restricted timber management activities. One letter expressed concern that the BLM couldn't properly maintain its existing road network and warned against compounding the problem with further easement acquisition and road construction (this is in the "manageability" facet of the land tenure and adjustment issue). The State Lands Commission reiterated its interest in acquiring more timber land but was currently not making formal application.

Upon distribution of the Draft EIS, public hearings will be held and written comments will be accepted. Following review of the draft, a Final EIS will be prepared and released for public review.



## DISTRIBUTION OF THE DRAFT EIS

Copies of the EIS have been furnished to numerous public libraries throughout the planning area for public review and reference. Copies have also been widely distributed to those expressing an interest in the planning process. In addition to individuals and others receiving a copy of the Draft EIS as a result of mailing lists or separate requests, the following agencies and organizations have been requested to review the document.

### FEDERAL AGENCIES

Custom Service, Eureka

#### Department of Agriculture

Forest Service, San Francisco

Forest Service, Mendocino National Forest, Willows, Covelo,  
Upper Lake

Forest Service, Six Rivers National Forest, Eureka

Pacific Southwest Forest & Range Experiment Station, Berkeley

#### Department of Army

Corps of Engineers, Sacramento, San Francisco

#### Department of Interior

Bureau of Indian Affairs, Hoopa, Sacramento

Bureau of Mines, Spokane, Washington

Fish and Wildlife Service, Sacramento

Geological Survey, Menlo Park

National Park Service, San Francisco

National Park Service, Redwood National Park, Crescent City

Environmental Protection Agency, San Francisco and Washington, D.C.

### CONGRESSIONAL REPRESENTATIVES

#### U.S. House of Representatives

Hon. Douglas Bosco, Eureka & Santa Rosa, CA, and Washington, D.C.

Hon. Barbara Boxer, San Rafael, CA, and Washington, D.C.

#### U.S. Senate

Hon. Alan Cranston, San Francisco, CA, and Washington, D.C.

Hon. Pete Wilson, San Francisco, CA, and Washington, D.C.

### STATE LEGISLATURE

#### California State Assembly

Hon. William Filante, San Rafael, Sacramento

Hon. Bev Hansen, Santa Rosa, Sacramento

Hon. Dan Hauser, Eureka, Sacramento

#### California State Senate

Hon. Barry Keene, Vallejo, Sacramento

Hon. Jim Nielsen, Chico, Sacramento

## STATE AGENCIES

Office of the Governor  
California Office of Planning and Research (State Clearinghouse)  
California Coastal Commission, San Francisco  
California Department of Fish & Game, Yountville, Ukiah, Eureka,  
Sacramento  
California Department of Forestry & Fire Protection, Ukiah, Fortuna,  
Santa Rosa  
California State Lands Commission, Sacramento  
California Division of Mines & Geology, Pleasant Hill  
California Department of Parks & Recreation, Carlotta, Weott,  
Garberville, Eureka  
California Farm Bureau Federation, Sacramento  
Humboldt State University, Dr. John Sawyer, Arcata  
University of California Cooperative Extension Service, Ukiah

## COUNTY GOVERNMENT

### County Supervisors

Del Norte County Board of Supervisors, Crescent City  
Humboldt County Board of Supervisors, Eureka  
Mendocino County Board of Supervisors, Ukiah  
Sonoma County Board of Supervisors, Santa Rosa  
Trinity County Board of Supervisors, Weaverville

### County and Local Agencies

Humboldt Bay Harbor District, Eureka  
Humboldt County Planning Department, Eureka  
Mendocino County Farm Advisor, Ukiah  
Mendocino County Fish & Game Advisory Committee, Ukiah  
Mendocino County Parks & Beaches, Ukiah  
Mendocino County Planning Department, Ukiah  
Sonoma County Parks Department, Santa Rosa  
Sonoma County Planning Department, Santa Rosa  
Trinity County Planning Department, Weaverville

## INTERESTED GROUPS/ORGANIZATIONS

Big Foot Alliance, Natasha Pearson, Monte Rio  
Bureau of Land Management, Ukiah District Advisory Council  
Peter W. Barnard, Calpella  
Irvin R. Brown, Ukiah  
Thomas F. Clemens, Redding  
Charles Edwin Green III, Sacramento  
Mrs. Jean Jenny, Berkeley  
Phillip A. Perry, Redding  
John Reginato, Redding  
Joe Russ IV, Ferndale  
Anna Sparks, Eureka  
James D. Stokes, Redding  
Cahto Coalition, Michael Huddleston, Leggett  
Cahto Tribe, Bert Aloan, Jr., Laytonville



## INTERESTED GROUPS/ORGANIZATIONS (Cont.)

Cal-Ore Association of Miners, Philip C. Dailey, Crescent City  
California Wilderness Coalition, Jim Eaton, Davis  
California Cattlemen's Association, Bill Branstetter, Ferndale  
California Native Plant Society, Ken Berg, Arcata  
California Native Plant Society, Ken Clark, Arcata  
California Native Plant Society, Sally De Becker, Berkeley  
California Native Plant Society, Alice Howard, Berkeley  
California Native Plant Society, Steve Zachary, Ukiah  
Coastal Mining Company, C.A. Dowd, Carson City, NV  
Environmental Protection Information Center, Robert Sutherland,  
Garberville  
Georgia-Pacific Corporation, Dow Jacobzoon, Fort Bragg  
Mattole Restoration Council, Sam Camp, Honeydew  
Mattole Watershed Taxpayers Association, Gil & Cecelia Gregori,  
Garberville  
Mattole Watershed Taxpayers Association, Charlie Eagle, Phillipsville  
Mendocino Public Lands task Force, Joe Ferrara, Covelo  
Mendo-Lake Pomo Council, Calpella  
Mill Creek Ranch, Ruth Douglas, Laytonville  
Mother Earth, Yvonne Reynolds, Covelo  
Natural Resources Defense Council, Johanna H. Wald, San Francisco  
Northcoast Environmental Center, Arcata  
Pacific Gas & Electric, William Chilson, San Francisco  
Red Mountain Association, Herb Roth, Leggett  
Red Mountain Association, Richard & Jane Wilson, Piercy  
Redwood Empire 4-Wheelers, Keith Jones, Eureka  
Redwood Empire 4x4 Club, Glenn L. Graham, McKinleyville  
Redwood Gun Club, Robert H. Fallis, Arcata  
Sierra Club, Lynn Ryan, Arcata  
Sierra Club, Ron Guenther, Fort Bragg  
Sierra Club, Laurens H. Silver, San Francisco  
Sierra Club, Lucille Vinyard, Trinidad  
The Nature Conservancy, Steve Johnson, San Francisco  
The Rural Institute, Don Morris, Willits  
The Rural Institute, Bob Whitney, Willits  
The Wilderness Society, Patricia Schifferle, San Francisco  
Tom Long Watershed Association, Douglas Fir, Garberville  
Tom Long Watershed Association, Jared Rossman, Redway  
Trust for Public Lands, Harriet Burgess, San Francisco  
Western Timber Services, Inc., Arcata, West Sacramento

## INDIVIDUALS

Philip S. Barber, Willits  
Katherine Barrows, La Quinta  
Fred Bauer, Garberville  
Nick Blackfield, Comptche  
Donald Borthwick, Redway  
David Brewer, Whitethorn  
John Brennen, Phillipsville  
Kim L. Butler, Redway  
Marylee Bytheriver, Redway

## INDIVIDUALS (Cont.)

Peter Childs, Miranda  
Dana Dangler, Garberville  
Jim Dangler, Garberville  
Will & Roberta Daniel, Richmond  
Deborah S. Deer, Garberville  
Wes & Linda Edwards, Redway  
Mark Foote, San Francisco  
Diane Foster, Whitethorn  
Arlo Hagler, Garberville  
Jon R. Hollcraft, San Jose  
J. Jergensen, Willits  
Peter Kaufhold, Miranda  
Dale M. Kaumans, El Sobrante  
Caroline LaPrade, Garberville  
Jim Lohr, Ukiah  
Tom & Carla Lohr, Laytonville  
Larry & Jeannie Malato, Phillippsville  
S. McClatchy, Arcata  
Marshall McNeil, Albion  
Janina Miller, Laytonville  
Jonell Friedkin Monschke, Miranda  
Jeff Morosa, San Francisco  
William Eugene Mulvihill III, Mendocino  
Peter M. Powell, Redway  
Jenny Revotskie, Miranda  
Priscilla Samas, Mendocino  
Susan Shafer, Corte Madera  
Robert "Woods" Sutherland, Redway  
Larry Todd, Willits  
Steven Weissbluth, Miranda  
James Whitley, Leggett





# List of PREPARERS

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# LIST OF PREPARERS

<u>Name</u>	<u>Position</u>	<u>Education &amp; Experience</u>
Tim Julius	Project Manager	B.S. Forest Recreation M.S. Forestry BLM Forester - 4 years BLM, PEC - 6 years
John Lloyd	Area Manager	B.S. Business Administration B.S. Park Administration BLM, Area Manager - 3 years BLM, Evaluation Staff - 2 years BLM, Supv. Rec. Planner - 3 years BLM, Recreation Planner - 4 years
Dan Averill	Forest Management	B.S. Forest Management BLM, Supervisory Forester - 4 years BLM, Staff Forester - 4 years BLM, Field Forester - 6 years
Francis Berg	Cultural Resources	BLM, Archaeologist - 10 years
Bruce Cann	Recreation	B.A. Natural Resources M.S. Natural Resources BLM, Outdoor Rec. Planner - 6 years BLM, Recreation Technician - 1 year
Earle Curran	Recreation	B.S. Park Management NPS, Park Ranger - 11 years NPS, Park Manager - 5 years BLM, Outdoor Rec. Planner - 7 years
Bruce Dawson	Botany	B.A. Botany M.S. Natural Resources BLM, Range Conservationist - 9 years
James Decker	Wildlife, Fisheries	B.S. Natural Resources BLM, Fishery & Wildlife Biologist - 10 years FWS, Biologist - 3 years
Clarence Killingswork	Word Processing	BLM, Office Manager/ Clerk-Typist - 3 years
Adrean Swensen	Forest Management	B.S. Forestry USFS, Forester - 9 years BLM, Forester - 18 years
Barbara Taglio	Public Affairs	BLM, Administration - 10 years BLM, Editorial Assistant - 2 years BLM, Public Info. Officer - 6 years



<u>Name</u>	<u>Position</u>	<u>Education &amp; Experience</u>
Robert Walker	Lands	B.S. Wildlife Biology BLM, Realty Specialist - 8 years BLM, Natural Res. Spec. - 5 years USFS, PSW F&R Exp. Sta. - 1 year
Sharon Waecter	Cultural Resources	B.A., M.A. Anthropology M.A. English USFS, Assistant Forest Archaeologist - 5 years BLM, Area Archaeologist - 2 years

#### CALIFORNIA STATE OFFICE SUPPORT TEAM

Richard F. Johnson	Deputy State Director, Lands and Renewable Resources
Carl D. Rountree	Chief, Planning and Environmental Coordination
Robert A. Barney	Planning Coordinator
C. Holden Brink	Environmental Coordinator
Judy E. Bowers	Land Law Examiner
Julie M. Littlejohn	Secretary

# APPENDICES

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## APPENDIX 1-1

### CANDIDATE OLD-GROWTH FOREST RESERVES

#### INVENTORY AND ANALYSIS

Inventory of the candidate old-growth reserves was accomplished by crews of The Nature Conservancy under cooperative agreement with the BLM. "Old-growth" is a very nebulous concept and what constitutes an adequate indication of "old-growth" is not scientifically fixed. Therefore, a variety of data were collected by TNC crews, not all of which were ultimately used for determining old-growth significance of the candidate reserves.

In general, the following factors were considered:

1. Total number of vascular plant species.
2. Total of old-growth associated animal species, such as spotted owls, the quintessential California red-backed vole, hermit thrush, hermit warbler, pileated woodpecker.
3. Number of bird species as an indicator of diversity.
4. Presence or absence of perennial water.
5. Species composition and stand condition such as age, defect, associations.
6. Amount of woody debris and snags.
7. Geographic continuity and manageability of the candidate reserve.
8. Location---significance as a "stepping stone" or tie with other known old-growth units, such as Forest Service SOMAs.

Similar inventories were done in the King Range National Conservation Area and the Northern California Coast Range Preserve; these were used as standards to measure the conditions of the candidate reserves.



## APPENDIX 1-2

### MANAGEABILITY

Manageability is a realistic appraisal of the grazing leases administered by the Ukiah District relative to the District's ability to soundly manage these leases. In that BLM has a commitment to responsible land stewardship, it was felt that lands currently under lease for grazing should be evaluated as to how they can be most efficiently managed.

It is the Bureau's position that some land currently under grazing lease would perhaps best be managed by elimination of grazing. Some of these lands are brush-covered with no suitable acreage present. In other cases, a grazing lessee may run a few head of cattle only because the misconception prevails that possession of a grazing lease infers something more than the harvesting of forage and maintenance of range improvements; it does not. In other instances, the belief is held that a lease for grazing preference will make a hunting club business more lucrative. Finally, some tracts are simply so small and isolated and of such marginal suitability that the highest and best use of that land may not be realized at present. It is not BLM's intent to make an ethical evaluation but rather to simply promote the use of each piece of public land for that use for which it is best suited and which we can most responsibly manage.

The manageability criteria are:

#### 1. Size of Land Tract and Location

This is simply used as a guideline for preliminary assessment of management potential.

#### 2. Number of Suitable Acres

Absence of suitable acres immediately places a grazing lease in the nonmanageable category. Any acreage above zero makes the decision discretionary.

#### 3. Number of AUMs

Less than 20 AUMs most often places a grazing base in the nonmanageable category. Twenty-one to 100 AUMs are generally considered the gray area where the manageability decision is discretionary and not weighted. Greater than 100 AUMs are considered manageable the majority of the time.

#### 4. Operator Dependency

No grazing lease is considered nonmanageable if the operator has demonstrated a dependency on the public land for his or her livelihood.

## 5. Tract Accessibility

Accessible tracts are generally considered manageable. Inaccessible tracts are discretionary.

## 6. Special Features of the Land

This is strictly supplemental input to facilitate the classification of the grazing leases.

Grazing leases within a given category (manageable or nonmanageable) do not necessarily have to meet all of the criteria to be placed in that category. The determinations are subjective but based on the greatest amount of data obtainable.



APPENDIX 1-3

LISTING OF WITHDRAWALS AND CLASSIFICATIONS AFFECTED BY

NATIONAL WILDLIFE FEDERATION V. ROBERT F. BURFORD, ET AL.

File Name	Agency/Authority	Term Revocation Date	Total Acreage Term/Revocation	Type of Segregation	Acreage Opened
S 572 WR	C&MU Act	Terminated 08-20-84	21,284	Agricultural Entry R.S. 2455 Sales Mining	21,284 Surface 8,234 Mining
S 598 WR	C&MU Act	Terminated 04-09-81	72,569	Agricultural Entry R.S. 2455 Sales Mining	72,569 Surface 5,465 Mining
S 669 WR	C&MU Act	03-11-85	36,689	Agricultural Entry R.S. 2455 Sales Mining	36,689 Surface 789 Mining
S 1477 WR	C&MU Act	03-11-85	8,460	Agricultural Entry R.S. 2455 Sales Mining	8,460 Surface 5,336.73 Mining
S 2635A WR	C&MU Act	03-11-85	4,712	Agricultural Entry R.S. 2455 Sales Mining	4,712 Surface
S 2701A WR	C&MU Act	03-11-85	7,331	Agricultural Entry R.S. 2455 Sales Mining	7,288 Surface 43 Mining
S 5137 WR	King Range	Continued		Agricultural Entry R.S. 2455 Sales Mining	
CA 7205 WR	Pickett Act (as amended)	Draft for Revoc. 10-04-82	80	Non-Metal Mining	
CA 7206 WR	Pickett Act (as amended)	Draft for Revoc. 07-06-82	40	Non-Metal Mining	
CA 7546 WR	Public Water Reserve	Continuation Proposed Pending	40	Non-Metal Mining	
CA 7614 WR	Powersite Class.	Pending	1,465.30	Surface	
CA 7628 WR	Powersite Class.	Pending	1,263.44	Surface	

File Name	Agency/Authority	Term Revocation Date	Total Acreage Term/Revocation	Type of Segregation	Acreage Opened
CA 7642 WR	Powersite Class.	Pending	18,095.59	Surface	
CA 7652 WR	Powersite Class.	Pending	280	Surface	
CA 7653 WR	Powersite Class.	Proposed Revoc. In Part (pending) Revoc. affects MDM land	5,503.85	Surface	
CA 7657 WR	Powersite Class.	Pending	2,182.04	Surface	
CA 7674 WR	Authority of the President	Lighthouse Pending	78.95	Mining Surface Estate	
CA 7676 WR	Authority of the President	Lighthouse Proposed Term. of Wdl. Pending	1.60 + —	Surface Mining	
CA 7678 WR	Authority of the President	Lighthouse Pending	30.0	Mining Surface	
CA 7679 WR	Authority of the President	Lighthouse Pending	117.66	Mining Surface	
CA 7682 WR	Authority of the President	Lighthouse Pending	226.19	Mining Surface	
CA 7684 WR	Authority of the President	Lighthouse Pending	7.0	Surface & Mining (Surface Estate)	
CA 7784 WR	Authority of the President	Harbor Improve- ment Pending	.30	Surface & Mining	
CA 7792 WR	S.O. 4-20-32	Revoked by PLO 6275	200	Mining	
CA 7897 WR	Powersite Class. Reserve	Pending	5,312.36	Surface	
CA 7898 WR	Powersite Reserve	Pending	120	Surface	
CA 7899 WR	Powersite Reserve	Pending	1,427.90	Surface	
CA 7997 WR	Powersite Class.	Pending	90	Surface	
CA 7998 WR	Powersite Class.	Pending	10,923.88	Surface	



File Name	Agency/Authority	Term Revocation Date	Total Acreage Term/Revocation	Type of Segregation	Acreage Opened
CA 8000 WR	Powersite Class.	Pending	11,195.31	Surface Estate	
CA 8016 WR	King Range	Pending	2,445	Surface Estate	
CA 8027 WR	Pickett Act	Draft for Revoc. Pending	40.0	Surface and Non-Metal Mining	
SAC024773WR	Act of 6-14-1926	Revoked by PLO 10-29-81	40.0	Mining & Surface	
SAC062537WR	PLO 6-15-1962 E.O. 10355 5-20-1952	Draft for Revoc. Pending	40.0	Mining & Surface	
SAC066474WR	PLO 2532 10-31-1961	Draft for Revoc. Pending	3,694.22	Mining & Surface	

SUSTAINED YIELD UNIT 13 PARAMETERS

The 10-year timber management plan model identifies the discrete forest management activities for the proposed action and alternatives. These activities incorporate design features as developed by the Ukiah District staff, BLM Manuals, and the Bureau planning process. They represent an appropriate level of specificity for analyzing impacts generated throughout SYU 13 under typical circumstances. Site-specific interpretation of these design features will be considered on a case-by-case basis and modified as necessary to reduce anticipated impacts. Environmental assessments (EAs) will be prepared for discrete timber management projects to evaluate site-specific problems.

ROADS

Access will be provided by the development of a permanent road system within all areas identified for intensive forest management and within permanent easements. Road design criteria will reflect the minimum standards acceptable for timber harvesting equipment on public lands, with somewhat higher standards where BLM roads become significantly used for public access.

Roads will be constructed in locations that require minimal surface disturbance and will avoid unstable areas and slopes in excess of 70 percent. A concerted effort will be made to use existing roads in developing road systems. However, a designed road will be built in preference to existing roads that are in poor locations, have excessive grades, or have severe drainage problems. Right-of-way clearing will be kept to a minimum width and will not normally exceed 5 feet above the top of the cut and 5 feet below the toe of the embankment. Vegetation will be removed for the primary purposes of reducing hazard and preventing undue shading of the road. Small trees and brush will be left in place to help stabilize cut and fill slopes.

Mainline roads will be designed as single-lane, low-traffic capacity roads. Normal subgrade width will be 16 feet with an additional 4 feet for a ditch. Mainline roads will be ditched and will have appropriate drainage structures. In accordance with BLM Manual 9113, the normal maximum grade will be 8 percent favorable and adverse where possible.

Spur roads used exclusively during timber harvesting will have a 14-foot subgrade and no ditch. Such spurs will be outsloped during construction and waterbarred and not maintained until the next stand entry. Spurs will be physically blocked to prevent unauthorized use.

Full-bench excavation with endhauling of waste material will be used on slopes exceeding 60 percent. Waste areas will be included in the road design and will include additional waste areas for slide that may occur after construction. Waste areas will be located so that material will not erode into streams, lakes, or reservoirs.



An active program of road dust abatement will be implemented on all active timber sales.

Cut and fill slopes and waste areas will be revegetated where necessary to reduce surface sloughing.

All stream crossing structures will be designed and constructed to allow free passage of fish in streams where a significant fisheries resource exists.

## SILVICULTURAL SYSTEMS

### MANAGED OLD-GROWTH

Research (Franklin et al. 1979) indicates that old-growth forests are ecosystems with elements critical for maintaining forest and stream productivity and health. These structural elements are (1) large trees, (2) large snags, (3) large woody debris on the forest floor, and (4) large woody debris in headwater streams.

1. The rotation age for Douglas-fir and associated conifers would be 100 years. Hardwoods would be carried as a coppice (originating from sprouts) and clearcut at every stand entry except the third.
2. A two-stage shelterwood regeneration system would be employed. Half the volume or basal area of 100-year-old trees would be retained as overwood until age 115.
3. Precommercial thinning would occur simultaneously with overwood removal as soon as sufficient regeneration is established (about 15 years after the seed cut).
4. The 400 stems normally left after precommercial thinning (Reukema and Bruce 1977) would be reduced to 360 to allow 10 percent of the acreage to be occupied by superdominants, when present.
5. Commercial thinning would be done at stand ages 38, 51, and 69.
6. At the time of precommercial thinning and overwood removal (15-year-old and 115-year-old trees, respectively), approximately 20 percent of the overwood stems would be recruited as superdominants and carried for an additional 85 years to an age of 200 years. The retention of these scattered superdominants, supported by approximately 10 percent of the growing capacity of the site, is the only major deviation from a modern concept of intensive management. Approximately twelve 18- to 20-inch diameter trees per acre would be recruited as superdominants and allowed to develop old-growth characteristics.
7. During the period between 115 and 200 years, some superdominants would naturally convert to snags and down logs. At 200 years, additional snags and down logs would be recruited from the superdominants. Half of the superdominants' volume at age 200 would be available for commercial extraction; the remainder would be invested in the site.

## YARDING SYSTEMS

Commensurate with the application of shelterwood as the primary silvicultural system, cable yarding will normally be the only system used on slopes over 35 percent. Tractor yarding will be limited to slopes under 35 percent. Although the slope may be less than 35 percent, skidders that exert low ground pressure or cable yarding systems will be required on areas highly susceptible to erosion or areas with slope stability and compaction and puddling problems. High-lead yarding will normally be used where slope dictates tractor restrictions and where topographic limitations will not permit a skyline setup. For future use, permanent features of cutting units, such as roads and landings and tailholds, will be left in a usable condition. Skid trails and tractor yarding will not be allowed in natural drainage ways to ensure that the natural drainage network is left intact.

## BUFFER STRIPS

Buffer strips are defined as zones of relatively undisturbed forest along perennial and intermittent drainages designed to protect riparian and aquatic ecosystems and the watershed from forest management activities.

Buffers will be a minimum width of 125 feet (horizontal distance) from the edge of the stream for perennial streams and 75 feet for intermittent streams.

Root wads and slash that accumulate in the drainages as a result of logging operations will be removed. However, the buffer strip will eliminate this need in most cases. There will be no intermediate cuts, fertilizing, or other practices within the buffer.

## HERBICIDES

The use of herbicides has not been a normal practice of the forest management program for SYU 13. Herbicide use on a limited scale is planned in the proposal. However, this use will not be obligated in the allowable cut computation. The proposal calls for a hand-applied herbicide release spray on 135 acres of conifer site presently suffering from grass competition. Such an action would be subject to specific design features included in herbicide project plans and guidelines for application. These guidelines are listed in Appendix 2-3, "Site Preparation and Release Specifications for Chemical Treatment - Ukiah District SYU 13 Timber Management Plan." Additionally, such projects would be subject to site-specific recommendations generated from an environmental assessment.

Specific projects for herbicide use in SYU 13 are developed in the Ukiah District Office. All proposed use of herbicides on public lands will be reviewed in advance for approval by the Bureau's Washington, D.C. Office and will comply with Environmental Protection Agency guidelines.



## SLASH DISPOSAL AND SITE PREPARATION

Gross yarding of down material would not generally be done. To improve plantability, spot burning of exceptionally dense slash is preferred in this alternative. The intent is to leave as much large litter as possible on the site.

All slash disposal requirements, including gross yarding and fire trail construction, will be included in all timber sale contracts where applicable. Mechanical treatment of brush and slash, such as the use of choppers and cutters, will be limited to slopes of 35 percent or less. Lopping, scattering, and spot burning of concentrations will also be used.

Sufficient site preparation/scarification will normally be provided during harvest activities. However, on slopes of 35 percent or less, additional scarification will be provided by mechanical means where needed.

## REGENERATION

Regeneration will be established within five years after initial entry. Natural regeneration will be favored as the primary means to retain diversity and ensure adaption of seedlings to the site. Artificial regeneration will be used to augment natural regeneration under shelterwoods and where there is not sufficient overstory for good seeding. Before final cuts in shelterwood and seed-tree areas are made, stocking surveys will be done to ensure that the area is sufficiently stocked.

## ANIMAL DAMAGE CONTROL

### Old Plantings

To date, there is no effective practical method to control animal damage to older plantings. Such measures as fencing and poisoning are unacceptable from an economic and environmental standpoint.

### New Plantings

Where a need is anticipated, plastic tubing (such as Vexars) will be used on newly planted stock.

## INSECT CONTROL

Epidemic outbreaks of destructive insects will be controlled with the advice and cooperation of the U. S. Forest Service, as stated in BLM Manual 5800.

## SANITATION/SALVAGE

Large-scale fire kill and catastrophic windthrow will be logged on an immediate basis, while minor cases will be handled whenever possible. The purpose will be to salvage any merchantable volume and prevent serious spread of diseases and insects.

## ADDITIONAL MITIGATIONS

### Spills/Watershed

Preferred road locations will be on ridgetops and on the upper one-third of the slope.

Roads will not be built on slopes in excess of 60 percent.

Mainline roads will be maintained at least annually, and more often if warranted. Waterbars and drainage structures on spur roads will be maintained for two years after construction. Rolling grade dips will be constructed and maintained where necessary on mainline and spur roads.

Main haul roads will be rocked to a moderate depth if used year-round. Alternative: roads will be closed to all traffic, including BLM, during the rainy season.

Geotechnical investigations will be conducted on proposed road locations far enough in advance of construction that major realignment can be surveyed and investigated.

Skid trails will be ripped when needed to improve soil structure.

No excavation will normally be permitted for skid trails.

Rubber-tired skidders will be prohibited except as swing machines on permanent mainline and spur roads.

There will be a 100-foot buffer zone around active slides. Actual tractor or road entry will be prohibited within this zone. No logging will be done in the slide area and buffer zone, but downed trees can be salvaged by end-lining from outside the buffer zone.

Inactive slides will not be undercut by roads.

Cable yarding across streams will be permitted only if sufficient deflection is available on the yarding corridor to fully suspend logs. Sufficient deflection will be provided to prevent flown logs from hitting the edge of a bench or bluff directly above the creek bank.

With the exception of road construction equipment, tractors and other machinery will not be permitted to operate within 30 feet of ephemeral channels and drainage areas. Merchantable trees may be harvested in this zone by directional falling techniques, but nonmerchantable vegetation will be left essentially intact. Hardwood control by hand and replanting may be



done to maintain a productive timber site. When necessary, yarding across channels will be done only in dry weather and perpendicular to the channel.

Road oiling using the proper formulation and successive applications will be done on continuous use roads.

### Vegetation

BLM will establish at least one seed production area for every seed zone and appropriate elevation zone.

### Wildlife

Where present, BLM will provide and maintain an average of 5-6 hard snags per acre (where feasible additional snags should be provided).

- Approximately one-half of all snags retained should exceed 21 inches in diameter and preferably be over 45 feet in height. While large snags are preferred, advantage should be taken of any snags, particularly during initial harvest and early implementation of snag retention programs.
- Snags can be left in small groups or singles to take advantage of existing snags. As snag management proceeds, it is desirable to distribute snags throughout the area. Overall, it is somewhat more desirable to leave proportionally more snags in the proximity of forest edges and streams.
- Where choice is possible, ponderosa pine is a preferred species for snag retention.
- All possible efforts will be made to meet snag requirements upon initial timber harvest entry. In some cases, this may require leaving a safety zone (a radius of the length of the snag) around its base to protect workers.

BLM will leave a minimum of a six downed logs per acre (Thomas 1979). Additional logs are desirable.

- When harvesting a stand, all presently occurring downed logs will be left in place. If an impassable jumble of logs is present, some can be scattered and, if necessary, removed.
- Where the minimum number of logs does not occur, unmerchantable sections of cut cull trees will be left in place or brush piles can be substituted until downed logs can be recruited.
- Uncharred logs are preferred since charring hardens the surface and slows decomposition, making them less valuable to wildlife. In this regard, broadcast burning of large acres of the forest floor will be discouraged.

- It is desirable to maintain a variety of logs in various stages of decomposition, and orientation along contour lines is preferred (Thomas 1979).
- The most desirable logs are at least 17 inches in diameter and 20 feet in length.

BLM will retain and maintain a minimum of five mature broad-leaved trees per acre and the same number of younger replacement trees.

- Species retained will be representative of natural vegetation occurring on the site; however, certain plants have greater values for wildlife than others. One such example is black oak (Quercus kelloggii).
- Broad-leaved tree retention and recruitment recommendations will be made on a case-by-case basis by a wildlife biologist.

Springs and seeps will be protected by 75 feet of undisturbed zones.

Natural meadows will be protected by a minimum 75-foot buffer zone (measured horizontally). Final width recommendation will depend on density of the stand and other site-specific criteria. A selective harvest may be permitted; however, a minimum canopy cover of 50 percent will remain, and no more than half of the trees with dbh of 21 inches will be removed. All snags will be retained.

The integrity of meadows will not be altered by timber harvest activities, including operation of machinery, falling, yarding, road construction, etc.

If on a particular site it is believed that a 75-foot buffer zone would result in excessive damage from windthrow, the zone will be expanded or cutting will not occur.

A minimum of 20 acres of mature and/or old-growth forest will be retained in each harvest area. This is especially important where the harvest block is relatively small and contains all or most of the remaining mature timber in an area. Additional area may be required where sensitive species are involved.

Attempts will be made to reduce the size of harvest area and stagger cutting cycles to provide a continuum of forest successional stages through long-term planning.

Where stream crossings are absolutely necessary, the road will be constructed in such a manner so as to reduce the amount of streamside area involved to a minimum. This would involve an attempt to cross the stream and its buffer zone at a right angle.

Roads and skid trails will not parallel buffer zones.



Each proposed timber sale and road network will be inventoried by a wildlife biologist at an early state of planning.

Biologists from other agencies (e.g., CDFG, USFWS) will be asked to participate in sale area inspection and recommend mitigation.

Special effort will be made to determine if suitable habitat is present for low density species, including pine marten, fisher, red tree mouse, and flamulated owl.

#### Spotted Owl

Approximately 300 acres, or where available more, will be provided for each pair of spotted owls. There have been 15 observations of this species as noted in Chapter 3 on public lands in SYU 13. If further inventory of these areas identifies them to be nesting sites, approximately 4,500 acres or 9.24 percent of the available productive forest land base would be deferred from forest management activities for an undeterminable period. Less area may be provided where habitat use occurs in part on land in other ownership and can be preserved through cooperative effort (i.e., this would primarily involve The Nature Conservancy's North Coast Preserve and the U.S. Forest Service). Land classified as nonproductive forest can be incorporated if it provides suitable habitat.

BLM will monitor known spotted owl areas every two years. Acres set aside for owls include the following:

- the nest site or grove;
- the permanent water course closest to the nest site; and
- where suitable, the hillside from drainage area to ridgetop.

#### Red-legged Frog

If encountered, additional habitat protection may require the expansion of aquatic buffer zones to 200 feet and special precautions in logging the surrounding area (e.g., suspended cable yarding).

#### California Mountain King Snake

Proposed buffer zones and downed log recommendations will provide a high degree of habitat protection for this species. No other mitigation is proposed at this time.

#### Osprey

If encountered on BLM land, nest sites will be protected by a no cut zone 600 feet in diameter. A one-half mile no disturbance zone will be imposed around the nest from February through August.

### River Otter

Where encountered, proposed buffer zone will be expanded to 200 feet and special logging methods imposed to reduce land disturbance.

### Mountain Lion and Bobcats

Any denning areas encountered will be protected from human disturbance by rerouting roads and other measures to reduce human disturbance.

### Goshawk

An undisturbed area of a minimum of 40 acres will be maintained around the nest site. Long-term planning should provide for maintaining suitable nesting habitat in the area for the future. As much north-facing slope should be included as possible. Ultimate size will depend on the amount of forest in the area. No timber harvest operations will occur within one-half mile of the nest site from March through August.

### Cultural/Sociocultural

Mitigation will include:

#### 1. Signing:

Under conditions of active or potential vandalism, cultural resources will be adequately signed, identifying the protection afforded by law. Care will be taken to ensure that signs are placed in a manner not to intrude upon the values of the site or to draw attention to the resource.

#### 2. Fencing/Gating:

According to the control and preventive measures desired, fences, barriers, railings and gates can be used alone or in combination for restrictable access. In some cases it may be necessary to selectively exclude access to portions of the cultural resource. As with other on-site physical measures, care will be taken not to damage or intrude upon more values than are protected. There are different kinds of fences, barriers, railings and gates and different materials that can be used. The planned design and materials will avoid unwarranted intrusion on the site. In the design of barriers, maintenance requirements and safety will be considered.

### Patrolling/Surveillance:

Patrols and inspection will be determined by the fragility of resource, degree of threat present, and the use and importance of the cultural resource. Where possible, fragile and accessible cultural resources will be visited and inspected frequently. The visit will result in a report documenting the status of the resource. The report will be evaluated by local, State and Federal agencies and other interested parties. Irregularly scheduled patrols are one of the best means of preventing pothunting,



vandalism and other unauthorized use. Patrolling requires careful planning and timing to be effective.

#### Erosion Control:

Cultural resources are frequently threatened by various types of erosion. Patrols and inspection surveys will monitor erosion. Checks will be made at water levels, major runoff areas, and where other potential erosion problems exist. Adequate drainage will be provided to prevent damage to resources. Catch basins, diversion dams, and other protection measures can be constructed to reduce erosion and protect the cultural resource. Erosion control should always be performed off-site.

## APPENDIX 2-2

### SITE PREPARATION AND RELEASE SPECIFICATIONS

#### FOR CHEMICAL TREATMENT - UKIAH DISTRICT

#### SYU 13 TIMBER MANAGEMENT PLAN

#### APPLICATION - GENERAL

Chemicals containing TCDD (dioxins) and/or highly volatile formations (such as butyl esters) and chemicals toxic to fish and other aquatic organisms (such as butoxy ethanol) will not be used.

Aerial applications (helicopter or airplane) will not be used. Applications will be by such methods as: (1) truck-mounted spraying units; (2) backpack pumps or pressurized tanks; or (3) tree injections, such as with the "Hypo-Hatchet."

#### Specifications

1. There will be no spraying when wind velocity exceeds 8 miles per hour.
2. There will be no spraying when air temperature exceeds 80 degrees Fahrenheit and relative humidity is less than 50 percent.
3. There will be no spraying within 200 feet of a dwelling or cultivated crop.
4. There will be no spraying within any buffer zone prescribed by the management plan and no spraying within 50 feet of designated waterways.
5. There will be no spraying within any identified rare or endangered species area.
6. Spray tanks and chemical containers will not be washed-out in or near any streams.
7. Chemical containers will not be disposed of in the treatment area.
8. Chemical mixing will be so located that accidental spills will not enter existing streams or bodies of water.
9. All chemical mixing, loading, hauling, and applications equipment will be free from leaks and will operate as designed.
10. The intake operation of water for mixing will be so arranged that an air cap or reservoir will be placed between the live water intake and the mixing tank to prevent any backflow of chemical into the water source.



11. Herbicide emulsions or solutions will be premixed in the presence of the certified applicator prior to filling the chemical tanks.
12. Each container will be rinsed three times with the same substance (oil or water) used to dilute the technical formulations. Each rinsing will be placed in a spray tank for application on target species. No washing or rinsing of equipment or containers and no dumping of chemicals or disposal of containers will be permitted on the project area or other lands administered by the BLM except as indicated in the management plan for the specific project. Upon completion of the work, all unused materials and all containers will be immediately removed from the area.
13. After rinsing, metal containers will be taken to an authorized dump site for disposal by the dump operator. Paper containers will be completely burned at a site identified by the project management plan or taken to an authorized dump site for disposal by the dump operator.
14. Water samples will be taken before, during, and at designated intervals following treatment operations. Samples will be tested by an approved laboratory for presence and quantity, if any, of chemicals used.
15. All chemical treatment operations will be under the direct supervision of a certified herbicide applicator.

#### Planning

All areas scheduled for chemical application for the purpose of site preparation or release will have a treatment plan prepared for each project. The plan will:

1. Comply with the Environmental Protection Agency (EPA) labels for the chemical(s) used.
2. Comply with the specifications listed above.
3. Comply with current EPA and State of California, Department of Food and Agriculture rules and regulations.

#### Operations

Treatment operations will be conducted in strict compliance with the prescribed plan for the project(s).

## APPENDIX 2-3

### BLM POLICY ON CONSERVING

#### SENSITIVE, RARE, THREATENED AND ENDANGERED PLANTS

#### IN CALIFORNIA

It is Bureau policy to conserve federally and state-listed rare, threatened or endangered plants and to utilize its authorities in furtherance of the purposes of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.), and similar State laws. The BLM, through its actions and/or decisions, will not jeopardize the continued existence of any federally listed threatened or endangered plant, nor will it destroy or adversely modify critical habitats (as determined by the Fish and Wildlife Service) of any such species.

It is also Bureau policy to conserve sensitive plant species. Plant species known or suspected to occur on public lands and that meet one of the following criteria are to be treated as sensitive: (1) Plants identified as candidates for listing as threatened or endangered by the Fish and Wildlife Service (FWS) in a Federal Register Notice of Review; (2) plants officially proposed for listing as threatened or endangered by the FWS in a Federal Register Notice; or (3) plants not meeting either of the above criteria but which have been designated as sensitive by the State Director. Pending formal listing, all sensitive plants will be afforded the full ESA protection (excluding formal but not informal section 7 consultation with the FWS), unless the state Director judges on a case-by-case basis that the evidence against listing a particular plant species is sufficient to allow a specific action. The burden of proof against listing and the responsibility for possible subsequent constraints in the event that the FWS does list the species in question lie with the BLM. Pertinent information may come from any source, but it is improbable information on the distribution and abundance of such plants will come in a timely manner from non-Bureau conducted or funded studies. Therefore, the BLM will conduct or contract inventories and studies of candidate threatened and endangered plant species which occur or are likely to occur on public lands. An adequate assessment will be made of the significance of individual populations of these species in the event that action funded or authorized by BLM will impact them.

The State Director may remove a species from the sensitive plant list after a review of information indicates that the species is more common or widespread than previously indicated, thus making it a highly unlikely candidate for listing as threatened or endangered. Reasons for such an action must be fully documented, and removal of a species for this reason must be accompanied by a written request (including the supporting evidence) to FWS that the species be dropped from the candidate list.

Full use should be made of the rare plant information on file at the California Natural Diversity Data Base maintained by the California Department of Fish and Game in Sacramento. This information can prove valuable in



determining the distribution of federally and state-listed rare, threatened and endangered plants, as well as sensitive plants. This information is, however, not a substitute for on-the-ground field work where data gaps exist. It should be recognized that the more information collected on factors such as the distribution, abundance, ecology, and population dynamics of these plants species, the easier it will be for the decision-maker to evaluate the overall impacts of a particular action to a species. District Managers should ensure that all new distributional data on listed or sensitive plants be submitted to the California Natural Diversity Data Base using forms they have provided. This will allow other agencies, as well as other BLM offices, easy access to newly gathered data.

The objectives of all programs will include the means to conserve federally and State-listed plants, to promote their delisting, and/or to maintain or enhance the ecosystem on which they depend. Objectives with regard to sensitive plants will be similar, with the emphasis on making their official listing unnecessary.

BLM efforts on behalf of all such plants will be fully coordinated with the Regional Office of the FWS, appropriate offices of other Federal agencies, State agencies, local conservation organizations, and other groups or private citizens, particularly landowners with holdings adjacent to public lands where sensitive, rare, threatened or endangered plants occur.

POLICY STATEMENT: SENSITIVE SPECIES MANAGEMENT

1. POLICY

It is Bureau of Land Management (BLM) policy to ensure that the crucial habitats of sensitive species will be managed to minimize the need for listing those species by either the Federal or California State Government in the future (BLM Manual section 6840).

This policy is a part of the implementation of BLM's on-the-ground multiple-use planning and management processes (MFP, RMP, HMP, AMP, EAR, EIS, etc.). This policy does not necessarily eliminate other uses of sensitive species' crucial habitats, but consideration of sensitive species habitats must be included in all decisions affecting the public lands. Where downward trends in population numbers and habitat conditions exist, positive management actions, such as development of HMPs, are appropriate. Where project impacts to sensitive species cannot be avoided, it may be appropriate to mitigate or compensate for those impacts elsewhere within the species' range in California.

This policy will integrate with, but not supersede, previous memoranda concerning sensitive plants, i.e., WO-80-722 (including Change 1) and CA-80-256.

2. BACKGROUND

The Endangered Species Act (ESA) of 1973 (as amended) directs the designation, conservation, and management of officially listed threatened and endangered plants and wildlife and their Critical Habitats. The management of such species and habitats is nondiscretionary and often restrictive in terms of management options.

Although only threatened and endangered species are addressed specifically in the ESA, it is within the overall intent of that act to manage other plants and wildlife so as to minimize the need for additional listings. Congress has indicated its concern for these other species through the referencing of several acts, conventions, and treaties within subsection 2(a) of the ESA. There is an implied commitment to the conservation of all plants and wildlife and their habitats so as to prevent additional listings. From this commitment to unlisted species has arisen the sensitive species concept.



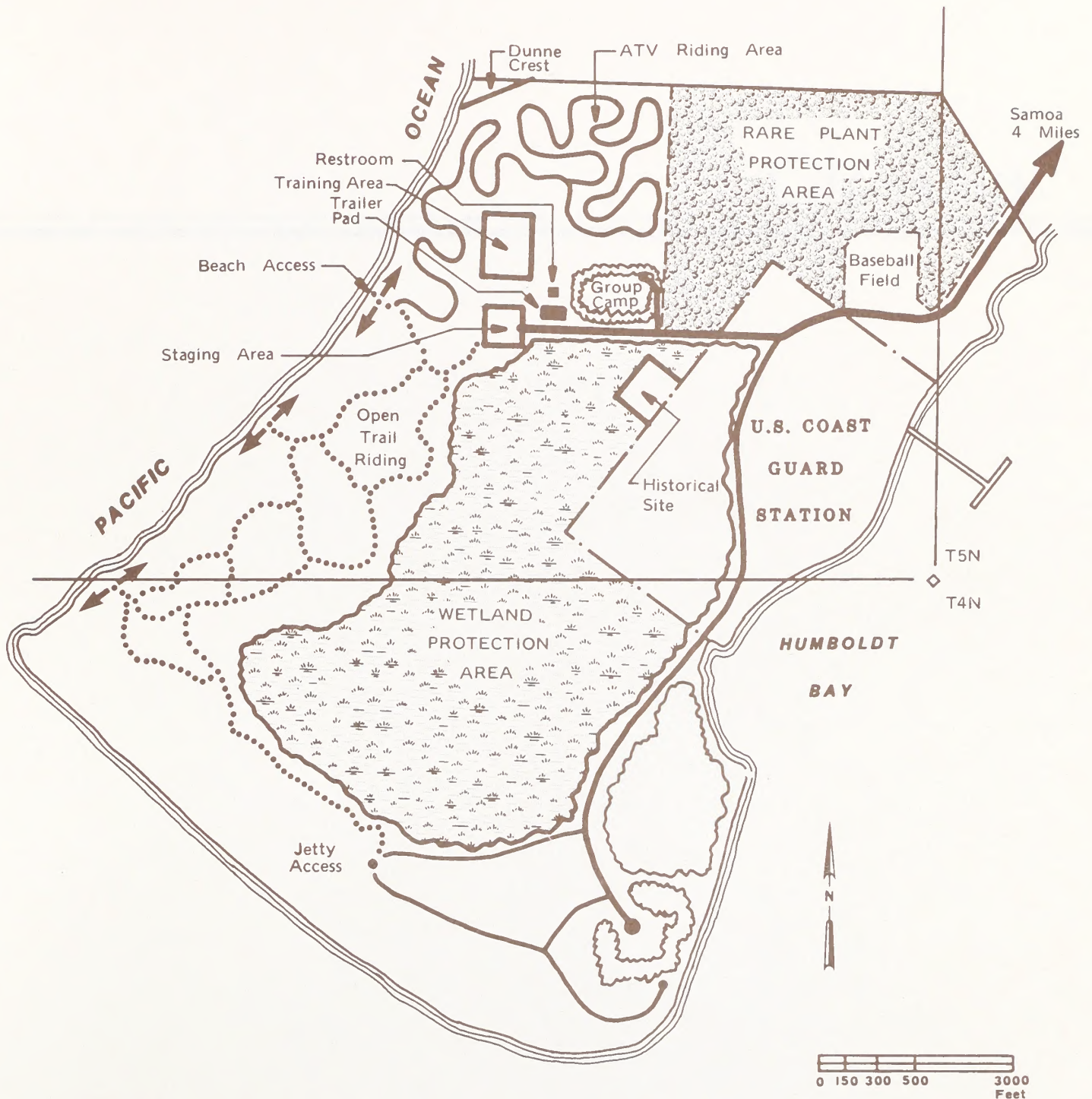
### 3. GOAL

The goal is to manage the public lands so as to prevent deterioration of sensitive species' habitat thereby precluding the need for State or Federal listing of those species. This goal includes the following objectives:

- A. Recognize certain sensitive species of plants and wildlife which merit special attention in the management of the public lands.
- B. Minimize the decline of those species designated as sensitive through the mitigation of resource management impacts.
- C. Promote the enhancement of sensitive species through positive management of their habitats and populations.

## APPENDIX 3-1

# SAMOA DUNES ORV CONCEPTUAL DEVELOPMENT MAP







# Glossary

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## GLOSSARY

### (INCLUDING ACRONYMS AND ABBREVIATIONS)

- ACEC. Area of Critical Environmental Concern. An area within the public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards.
- ACTIVITY PLAN. A site specific plan for the management of one or more resources (i.e. CMP, AMP). Activity plans implement decisions made in the Resource Management Plan.
- ALLOTMENT. An area of land where one or more operators graze their livestock. It generally consists of public lands but may include parcels of private or State-owned lands. The number of livestock and period of use are stipulated for each allotment. An allotment may consist of several pastures or be only one pasture.
- AMP. Allotment Management Plan. A concisely written program of livestock grazing management, including supportive measures if required, designed to attain specific management goals in a grazing allotment. It is prepared with consultation, cooperation, and coordination with the permittee(s), lessee(s), or other affected parties.
- AUM. Animal Unit Month. The amount of forage necessary for the complete sustenance of one cow, or its equivalent (one horse or five sheep, all over six months old) for one month; also, a unit of measurement of grazing privilege that represents the privilege of grazing one animal for a period of one month.
- ANNUALS. Plants produced from seed which complete their life cycle in one growing season.
- ARCHAEOLOGICAL RESOURCES. Sites, areas, structures, objects, or other evidence of prehistoric or historic human activities.
- ARCHAEOLOGICAL SITE. Geographic locale containing structures, artifacts, material remains, and/or other evidence(s) of past human activity.
- BIOLOGICAL ASSESSMENT. A procedural step in the interagency consultation process under section 7 of the Endangered Species Act where the BLM submits a written summary of potential project impacts to threatened or endangered species to the USFWS for their evaluation.
- BMP. Best Management Practice. A practice or combination of practices determined by the State and/or areawide planning agencies, after problem assessment, examination of alternative practices, and appropriate public participation, to be the most effective, practicable means of preventing or reducing pollution generated by non-point sources to a level compatible with water quality standards.



- BROWSE. The tender shoots, twigs, and leaves of trees and shrubs often used as food by deer, livestock and other animals; or to feed on or eat browse.
- CAMP SITE. Area utilized for one or more tasks, which also shows evidence of occupation by the presence of housepits, midden deposits, and/or hearths.
- CARRYING CAPACITY. The maximum stocking rate possible without damaging vegetation or related resources. Carrying capacity may vary from year to year on the same area due to fluctuating forage production caused primarily by differing amounts of precipitation.
- CFL. Commercial Forest Land. Forest land that is capable of yielding at least twenty cubic feet of wood per acre per year of commercial coniferous tree species.
- CANDIDATE SPECIES. Candidate species are any species not yet officially listed, but which are undergoing a status review or are proposed for listing according to Federal Register notices published by the Secretary of the Interior or the Secretary of Commerce.
- CRITICAL HABITAT. Any habitat, which if lost, would appreciably decrease the likelihood of the survival and recovery of a threatened or endangered species, or a distinct segment of its population. Critical habitat may represent any portion of the present habitat of a listed species and may include additional areas for reasonable population expansion. Critical habitat must be officially designated as such by the Fish and Wildlife Service or the National Marine Fisheries Service.
- CUMULATIVE IMPACT. The aggregate impact of existing and proposed activities. Individual intrusions when considered by themselves may not impair wilderness suitability, however, when combined with other existing and proposed substantially unnoticeable impacts, the total effect may be sufficient to impair an area's suitability for preservation as wilderness.
- CUSTODIAL MANAGEMENT. The opposite of active or intensive management.
- DEPENDENCY. The amount of forage provided by public land, expressed as a percentage of herd's total forage requirements for one complete year. The forage requirement is based on the ranch's total herd.
- EA. Environmental Assessment.
- ECOTONE. The transition zone between two plant communities. Usually this zone embodies some of the features of two communities, but has a characteristic structure of its own. It is usually a belt rather than a sharp line.
- EMERGENCY ACTIONS. Operations which are in response to a natural or other type disaster, such as flooding, fires, and earthquakes.

**ENDANGERED SPECIES.** Any species formally recognized by the U.S. Fish and Wildlife Service as in danger of extinction throughout all or a significant portion of its range.

**ESSENTIAL HABITAT.** Areas recommended for designation as critical habitat for threatened or endangered species.

**FAUNA.** The animals of a given region or period.

**FORAGE.** All browse and herbacious foods that are available to grazing animals.

**GRAZING LEASE.** A document authorizing use of the public land for the purpose of grazing livestock.

**GUZZLER.** A water catchment and storage device utilizing a concrete, asphalt, or steel apron to catch rainfall and a buried tank (usually fiberglass) to store it. Guzzlers usually store about 900-1,000 gallons of water, when full. They are accessible, at ground level to small wildlife, by means of ramp leading into the tank.

**HABITAT.** A specific set of physical conditions that surround a single species, a group of species, or a large community. In wildlife management, the major components of habitat are considered to be food, water, cover, and living space.

**HISTORIC.** Refers to period wherein non-native cultural activities took place, based primarily upon European roots, having no origin in traditional Native American culture(s).

**INFRASTRUCTURE.** The basic, underlying framework or features of something especially of a technological kind, as communication and transport facilities, etc., of an organization.

**INHOLDING.** A parcel of nonpublic land surrounded by public land.

**LEASABLE MINERALS.** Those minerals or materials that can be leased from the Federal government. Includes oil and gas, coal, phosphate, sodium, potash, and oil shale.

**LITHIC SCATTER.** A prehistoric site characterized by a scatter of stone tools and flakes that may indicate a number of functions.

**LOCATABLE MINERALS.** Minerals or materials subject to disposal and development through the Mining Law of 1872 (as amended). Generally includes metallic minerals such as gold and silver and other materials not subject to lease or sale (some bentonites, limestone, talc, some zeolites, etc.).

**MANAGEMENT AREA.** A discrete portion of the total planning area that has common features, problems, and/or management needs, that lends itself to specific management decisions.

**MBF.** Thousand Board Feet. A measure of timber volume.



MIDDEN. Dark-colored soil deposits formed from organic residues remaining from Indian campsites, frequently containing artifactual, faunal, and floral constituents of high scientific value.

MMBF. Million Board Feet.

MONITORING. Specific studies which evaluate the effectiveness of actions taken toward achieving management objectives.

MULTIPLE USE. The management of the public land and its various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; the use of some land for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific, and historical values, and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output.

NRHP. National Register of Historic Places. A register of districts, sites, buildings, structures, and objects, significant in American history, architecture, archaeology, and culture, established by the Historic Preservation Act of 1966 and maintained by the Secretary of the Interior.

OFF-ROAD VEHICLE DESIGNATION. Executive Order 11644 requires that all public land be designated for appropriate levels of ORV use in one of three possible categories: Open, Limited, or Closed.

ONA. Outstanding Natural Area. Area of outstanding scenic splendor or natural wonder that merits special attention and care in management to ensure its preservation in a natural condition.

PERENNIAL. A plant have a life cycle of three or more years.

PERMITTEE. Holder of a license or permit for grazing on an allotment.

PLANT COVER. The percent of an area covered by any part of living plant material (aerial plant cover), or that percent area occupied by the portion of living plants at the point of emergence from the ground (basal plant cover).

PREHISTORIC. Refers to period wherein Native American cultural activities took place which were not yet influenced by contact with historic non-native culture(s).



**PRESCRIBED BURNING.** The application of fire to wildland fuels under such conditions of weather, fuels, and topography that specific objectives are accomplished safely.

**PUBLIC LAND.** Land administered by the Bureau of Land Management.

**RANGE IMPROVEMENT.** Any activity or program on or relating to rangelands which is designed to improve production of forage, change vegetation composition, control patterns of use, provide water, stabilize soil and water conditions, and provide habitat for livestock, wild free-roaming horses and burros, and wildlife. The term includes but is not limited to structures, treatment projects, and use of mechanical means to accomplish the desired result.

**RAPTOR.** Birds of prey with sharp talons and strongly curved beaks; e.g., hawks, owls, eagles, falcons.

**RIGHT-OF-WAY GRANT.** A right attached to the land for use by another party (i.e., utility lines, road, etc.).

**RIPARIAN.** Situated on or pertaining to the bank of a river, stream, or other body of water. Normally used to refer to the plants of all types that grow rooted in the watertable of streams, ponds, and springs.

**RNA.** Research Natural Area. As defined in 43 CFR 8223.0-5, means an area that is established and maintained for the primary purpose of research and education because the land has one or more of the following characteristics: a typical representation of a common plant or animal association; an unusual plant or animal association; a threatened or endangered plant or animal species; a typical representation of common geologic, soil, or water features; or outstanding or unusual geologic, soil, or water features.

**SENSITIVE SPECIES.** Animals not yet listed as endangered or threatened, but that are undergoing a status review. This may include animals whose populations are consistently and widely dispersed or whose ranges are restricted to a few localities, so that any major habitat change could lead to extinction. A species that is particularly sensitive to some external disturbance factors.

**SIGNIFICANCE.** A high degree of importance as indicated by either quantitative measurements or qualitative judgments. Significance may be determined by evaluating characteristics pertaining to location extent, consequences, and duration.

**SUSTAINED YIELD.** The achievement and maintenance in perpetuity of a high level annual or regular periodic output of the various renewable resources of the public land consistent with multiple use. This term is most commonly associated with forest management and the provisions of an undiminished or "even flow" average annual production of wood fiber over decades. It is also applicable to the management of all renewable resources including forage, wildlife, water, recreation, or



any value that can be managed for renewal and sustained productivity. It is dependent on the application of multiple use management in a way that assumes the maintenance of the land's productivity.

**THREATENED SPECIES.** Any species formally recognized by the U.S. Fish and Wildlife Service as likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

**TPCC.** Timber Production Capability Classification. The process of partitioning forest land into major classes indicating relative suitability to produce timber on a sustained yield basis.

**VEGETATION TYPE.** A grouping of similar vegetation based on structure, a product of the complex of climatic factors effective in a region.

**VISITOR HOURS.** Unit of measure for recreation use; one hour spent on public land by one recreationist.

**VRM.** Visual Resource Management. The planning, design, and implementation of management objectives to provide acceptable levels of visual impacts for all BLM resource management activities. VRM classes I through V each describe a different degree of modification allowed in the basic elements of the landscape and still retain its character.

**WATERSHED.** The area drained by a river or stream system.

**WITHDRAWAL.** A formalized action restricting specified land from operation or disposal under specified laws, either mineral laws or land disposal laws, or both. Can also be used to transfer jurisdiction of land to another Federal agency.

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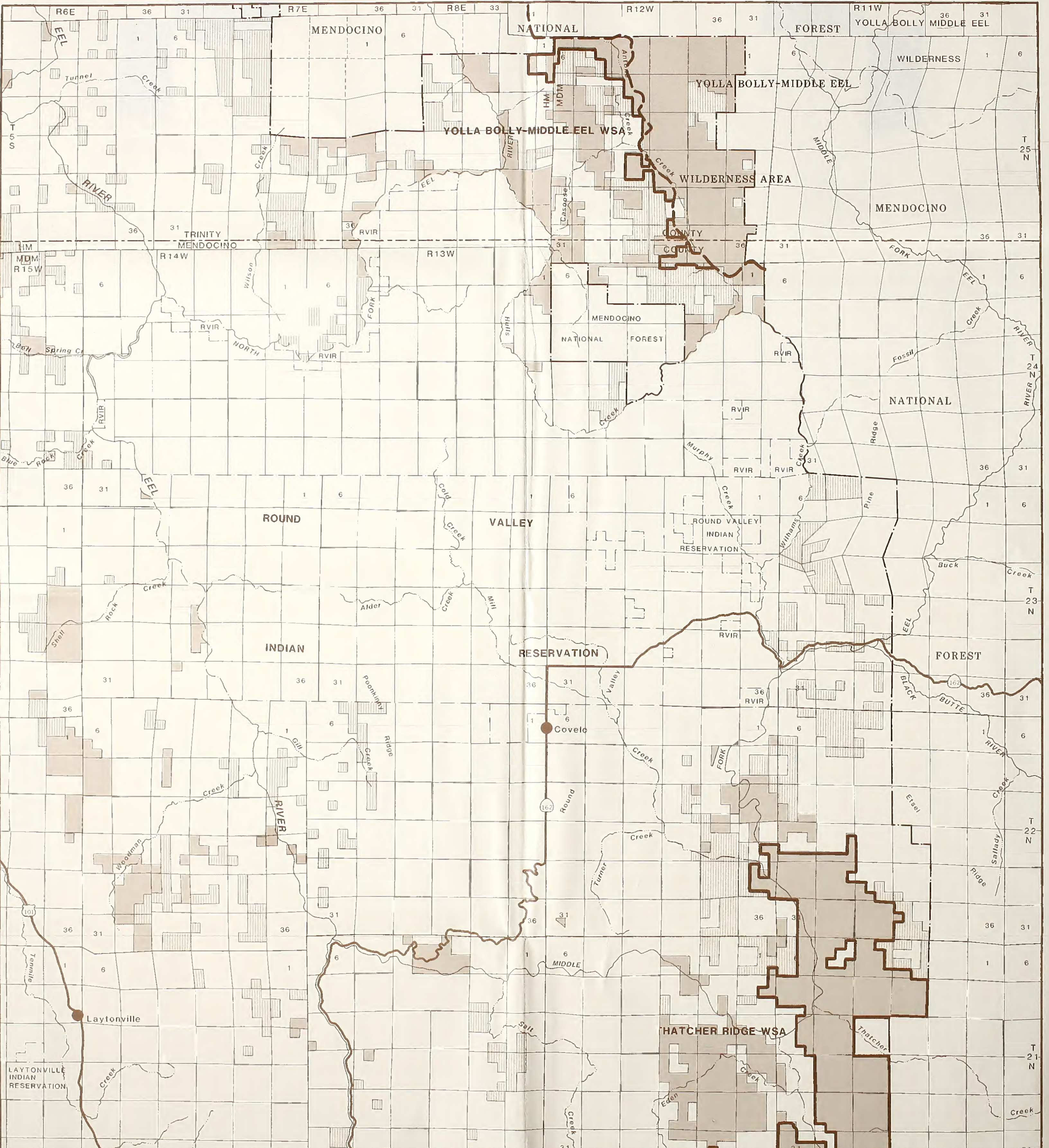
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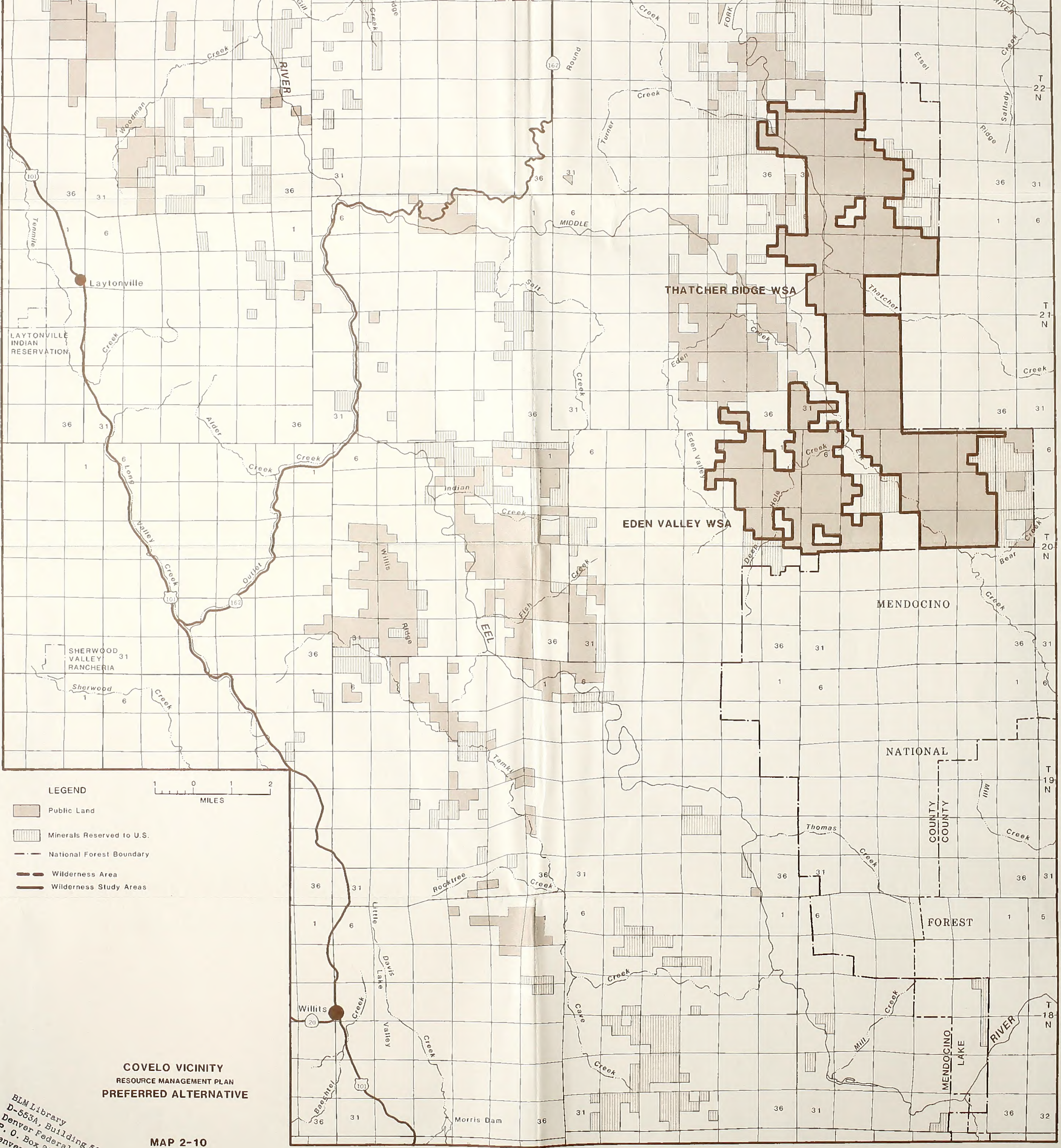
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COVELO VICINITY  
RESOURCE MANAGEMENT PLAN  
PREFERRED ALTERNATIVE

MAP 2-10

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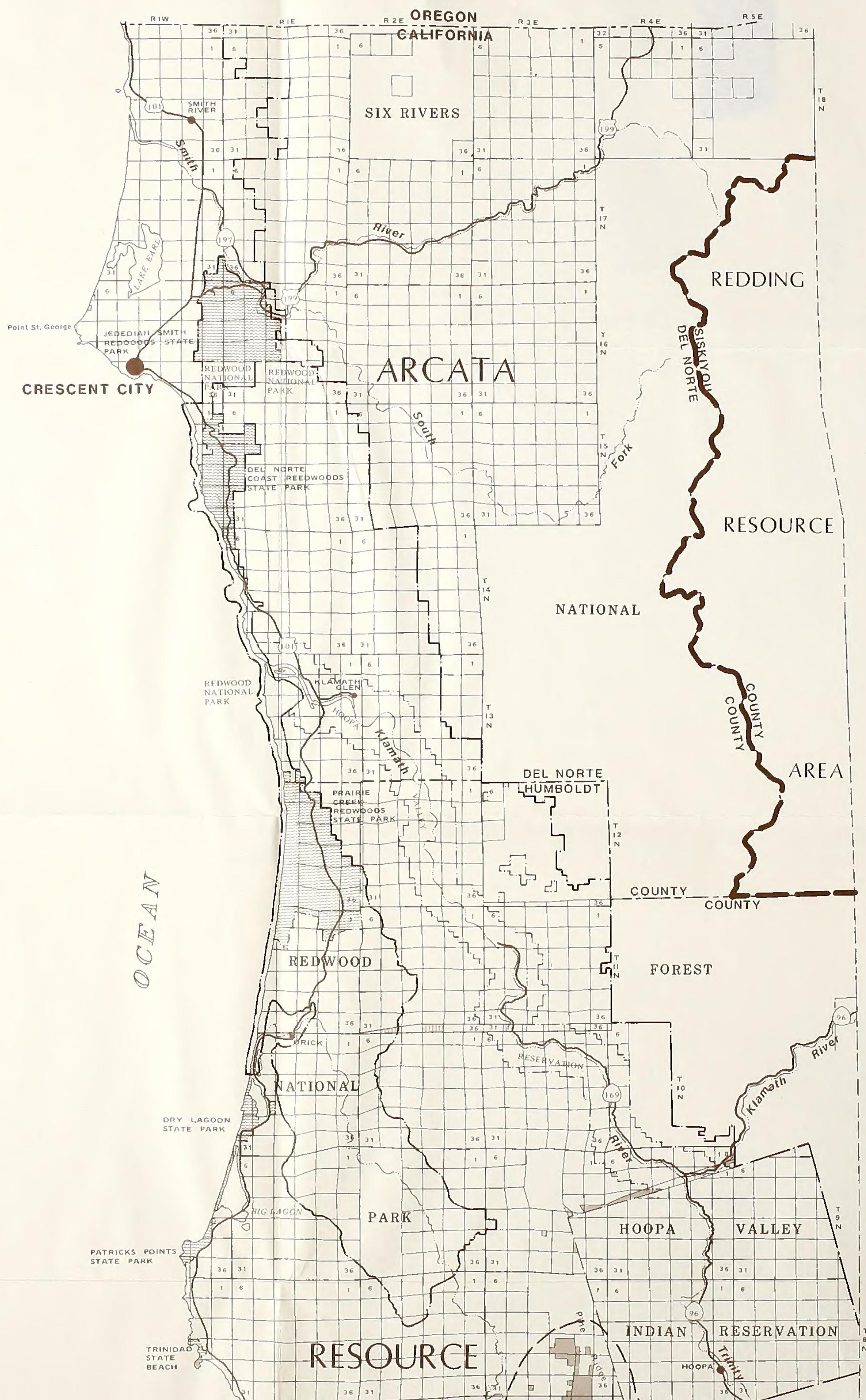








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## SCATTERED TRACTS

RESOURCE MANAGEMENT PLAN





MAP 2-12  
NORTH HALF

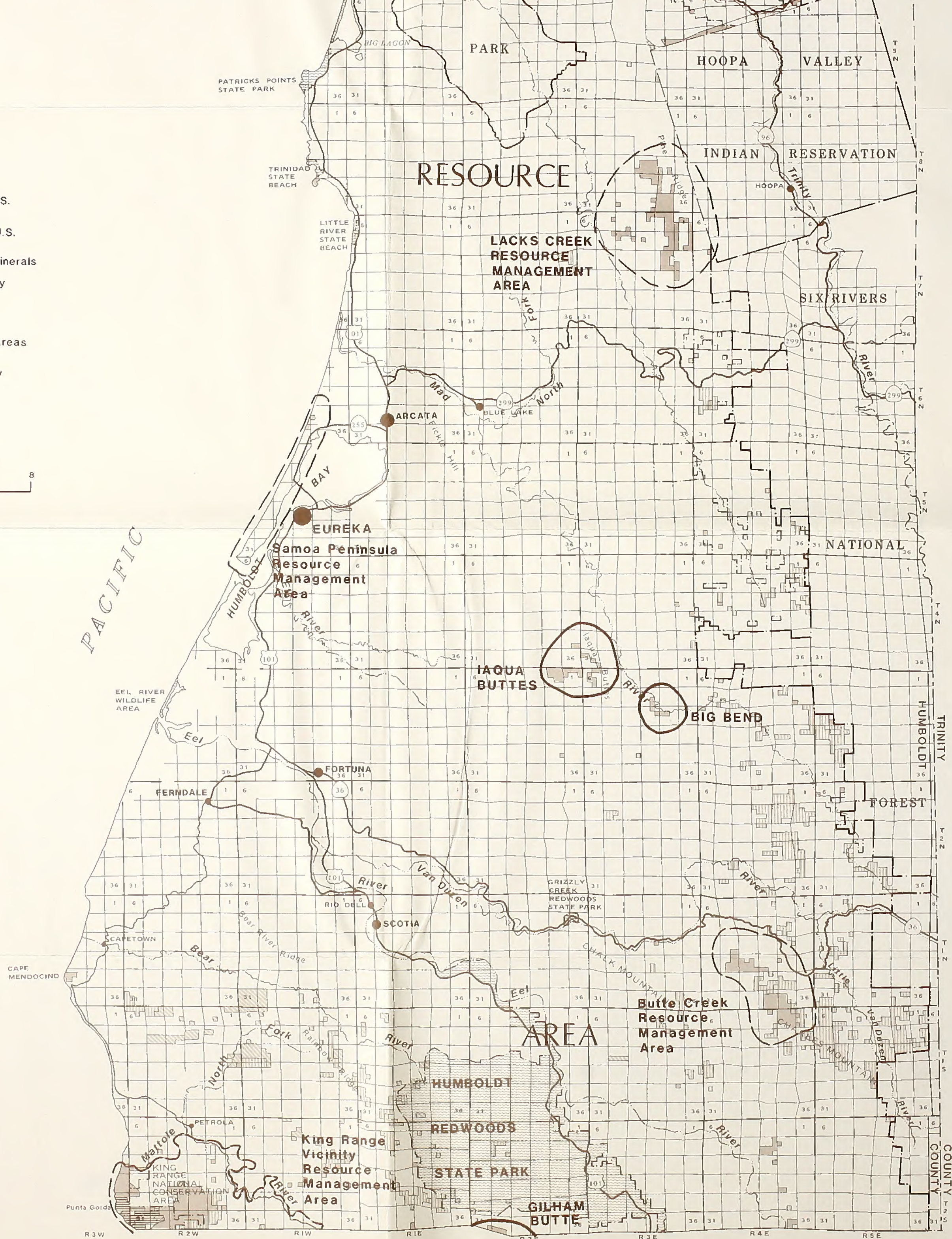
### LEGEND

- Public Land
- Minerals Reserved to U.S.



# LEGEND

-  Public Land
-  Minerals Reserved to U.S.
-  Oil & Gas Reserved to U.S.
-  Public Surface/Private Minerals
-  National Forest Boundary
-  National Park Boundary
-  Resource Management Areas
-  Resource Area Boundary






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**SCATTERED TRACTS  
RESOURCE MANAGEMENT PLAN**

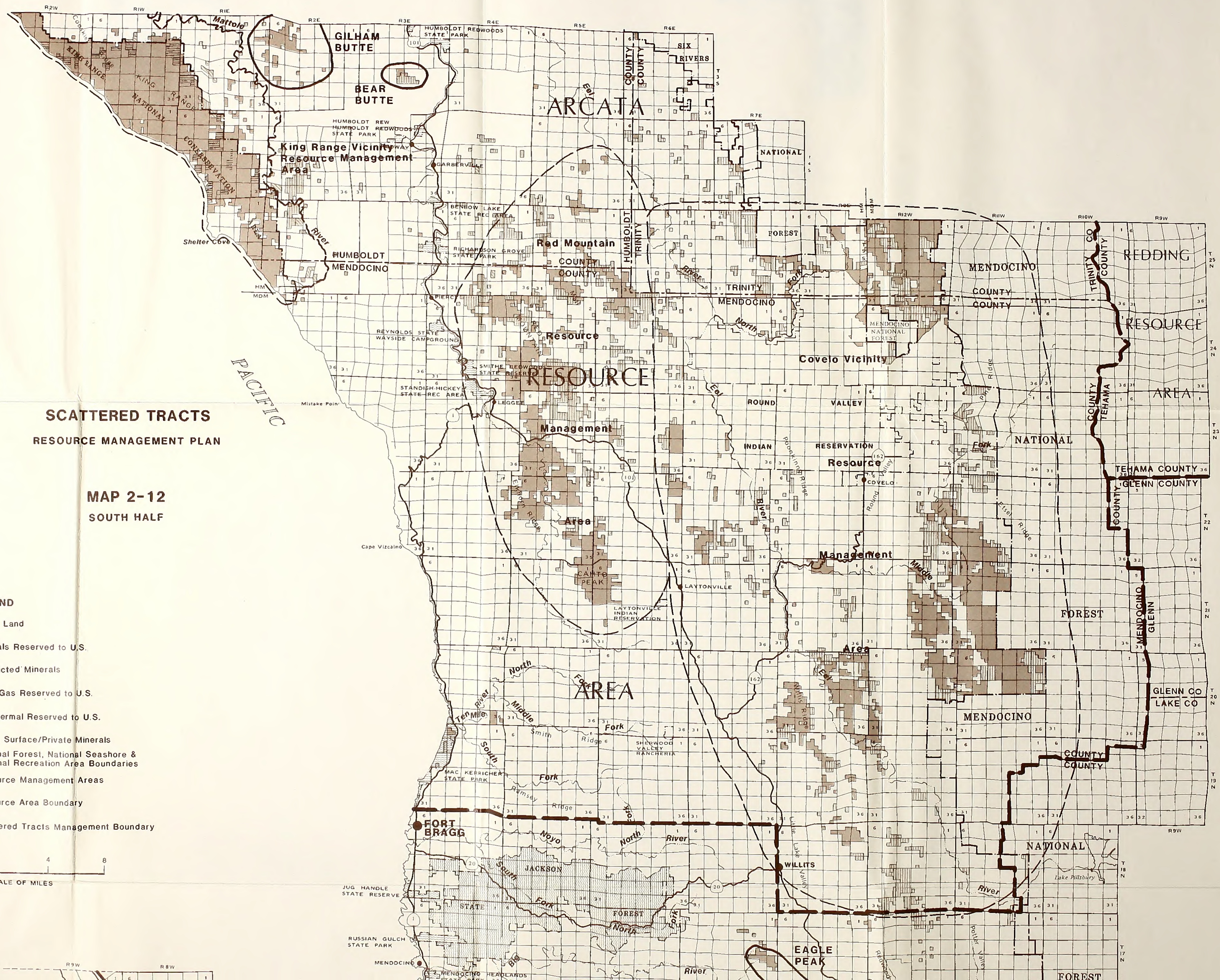
**MAP 2-12  
SOUTH HALF**

**LEGEND**

-  Public Land
-  Minerals Reserved to U.S.
-  Restricted Minerals
-  Oil & Gas Reserved to U.S.
-  Geothermal Reserved to U.S.
-  Public Surface/Private Minerals
-  National Forest, National Seashore & National Recreation Area Boundaries
-  Resource Management Areas
-  Resource Area Boundary
-  Scattered Tracts Management Boundary



**MATCH LINE**





- Resource Management Areas
- Resource Area Boundary
- Scattered Tracts Management Boundary



MATCH LINE



MATCH LINE

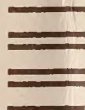


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